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XV. *On the Tortricidæ, Tineidæ, and Pterophoridæ of South Africa.* By Lord Walsingham, M.A., F.Z.S., &c.

[Read June 1st, 1881.]

Through the courtesy of Mr. Roland Trimen, Curator of the Natural History Museum at Capetown, South Africa, I have had an opportunity of examining the Micro-Lepidoptera collected by Mr. W. D. Gooch, of Spring Vale, Victoria County, Natal, chiefly in the neighbourhood of Spring Vale, but partly in the vicinity of D'Urban. Mr. Trimen informs me that they form part of a large collection of Lepidoptera-Heterocera, made by Mr. Gooch during the years 1873 to 1879, and lately acquired by the Trustees of the South African Museum.

To enable me to identify such as have already been characterised it has been necessary to refer to all the descriptions of South African species published up to the present time.

Very little has as yet been done to make known to entomologists the Micro-Lepidoptera of South Africa. Only about 78 species of *Tortricidæ* and *Tineidæ* have been described by different authors as occurring in that district.

Professor Zeller, in the 'Linnæa Entomologica,' vol. v. (1851), described *Nemophora crinigerella*; and in vol. vi. (1852), two species of *Pterophoridæ*.

In the 'Handlingar Kongliga Svenska Vetenskaps Akadamien,' 1852, the same author described one new genus, *Eccopsis*, and six new species of *Tortricidæ*, exclusive of *Nycteolidæ*, but including the genus *Choreutis*, Hüb., five new genera, and thirty-one new species of *Tineidæ* and *Pterophoridæ*, all from Mr. Wahlberg's collection.

Mr. Stainton, in the Trans. Ent. Soc., Lond., n. s., vol. v., pp. 220—223 (1860), described five new species of *Tineidæ* from Natal.

Mr. Walker, in the years 1863 to 1866, in his 'Catalogue of Lepidoptera-Heterocera in the British

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Museum,' vols. xxviii. to xxxv., described two new genera and six new species of *Tortricidæ*, with six new genera and twenty-seven new species of *Tineidæ* and *Pterophoridæ* from Natal and the Transvaal.

In 1875 Herr Pastor Wallengren, in the 'Öfversigt Af. Kongl. Vet. Akad. För.,' 1875, Arg. 32, pp. 127—130, described five new species of *Tineidæ* and one new *Alucita;* and, in the same year, Messrs. Felder and Rogenhofer figured eight species as new in the 'Reise der Fregatte Novara.'

Thus the whole number of South African species in the above-named groups (including also the *Alucitidæ*), which have been distinguished up to the present time, amount to 92 only, and this number must be somewhat reduced, as I propose to show in the course of the present paper, by the necessary rectification of their synonymy.

The examination of Mr. Gooch's collection has been very instructive; not only has it been found to contain many new and interesting forms, but the necessary study of the work already done has made me acquainted with the typical species, upon which no less than eleven genera have been founded, although four of these cannot rightly be retained. It is much to be regretted that many of Mr. Gooch's specimens are not in sufficiently good condition to warrant their description, and that for this reason it has been necessary to pass over much new material which might otherwise have been made available to increase our very limited acquaintance with these local forms.

The following, so far as I am able to ascertain, is a complete list of described South African *Tortricidæ*, *Tineidæ*, *Pterophoridæ*, and *Alucitidæ*, up to the present time. It will be found to include descriptions of several new specific and some new generic forms from Mr. Gooch's collection, with the addition of a few species from my own cabinet, and two from the British Museum.

I have endeavoured to make the list somewhat more useful by pointing out the synonymy of the genera and species wherever sufficient evidence has been found to enable me to determine it, as well as by making a few notes upon the typical specimens in the collection at the British Museum where Mr. Walker's descriptions have seemed to require additions or corrections.

TORTRICIDÆ.

CACŒCIA, *Hübner.*

Cacœcia reciprocana.

Teras reciprocana, Walk., Cat. Lep. Het., B. M., xxviii. 295.

In Mr. Gooch's collection are two female specimens, which, although differing in the intensity of their markings from the typical example described by Mr. Walker, I cannot consider to be specifically distinct. The bad condition of the original type prevents any very accurate comparison, but there remain upon it even yet some slight traces of those darker markings, the absence of which might otherwise have appeared to distinguish it from the two which are now before me. In one of these, on the pale testaceous surface of the fore wings, are to be found—first, an outwardly angulated fascia on the basal fourth of the wing interrupted above the middle; secondly, an outwardly angulated median fascia attenuated but not interrupted above the middle; thirdly, a shade along the apical margin starting obliquely outwards from the commencement of the outer third of the costa, angulated below the middle and confluent along the dorsal margin with the median fascia: all these markings are of a darker or more fuscous testaceous shade than the ground colour of the wing. In the second example these markings are almost entirely obsolete, except upon the costal margin. I should consider this specimen as forming the connecting link between the type of the species and the one above described.

The male will probably be found to have a costal fold, as the structure and appearance of the three females before me are in all respects those of the genus *Cacœcia*.

Taken at light in November. Spring Vale.

Cacœcia ? capitana.

Tortrix capitana, F. & R., Reise d. Nov., pl. cxxxix., figs. 48, 49.

"Affinis *Ter. reciprocanæ*, Walk."

This species seems to differ in the absence of transverse markings on the fore wings from any which are

represented in the British Museum or in Mr. Gooch's collection.

Cacœcia adustana, n. s. (Pl. X., fig. 1).

Capite palpis antennis et thorace brunneo-cervinis. Alis anticis (costa ante apicem emarginata) dilute subochraceo-cervinis; fascia irregulari, postice reduplicata, macula costali post-medium, costa extrema has interjacente, et ciliis marginis apicalis, fusco-purpureo suffusis ferrugineo dilute subliturati. Posticis dilute albido-stramineis.

Head, palpi, thorax and antennæ fawn-brown, the palpi projecting scarcely more than the length of the head beyond it. Fore wings (with the costa slightly emarginate before the apex, the apical margin slightly indented) pale ochraceous fawn-colour, with a conspicuous irregular purplish fuscous fascia, commencing before the middle of the costa, tending outwards to the upper edge of the cell, whence it is reduplicated; the inner branch running obliquely to the dorsal margin, slightly angulated on the fold; the outer branch biangulate, one angle being at the end of the cell and one on its lower edge, whence it proceeds obliquely outwards to the outer half of the dorsal margin; there is a rather triangular purplish fuscous costal spot beyond the middle, faintly prolonged by a few brownish scales in the direction of the anal angle, and the extreme edge of the costa itself is purplish fuscous, except at the base and apex. Cilia purplish fuscous. The spaces round and about the dark markings and between the forks of the central fascia are more or less suffused or blotched with ferruginous-brown, blending into the paler ground colour of the wing. Under side pale straw-colour, except the dark purplish cilia. Hind wings and cilia pale whitish straw-colour. Expanse, 24 mm.

In Mr. Gooch's collection are two specimens, both females, taken at light in October at Spring Vale.

LOZOTÆNIA, *Herrich-Schäffer*.

Lozotænia capensana.

Teras capensana, Walk., Cat. Lep. Het., B. M., xxviii. 295.

Teras meridionana, Walk., Cat. Lep. Het., B. M., xxviii. 295.

This species is represented in Mr. Gooch's collection by four males and two females, in somewhat better condition than Mr. Walker's original types which are in the British Museum. Having quoted as synonyms the two names supposed by Mr. Walker to have been given by him to two distinct species, I feel that no apology will be required for reprinting at full length the Latin diagnosis of each as it appears on the same page of his Catalogue :—

"53. *Teras capensana.*

"*Mas.*—Pallide cervina; alæ anticæ acutæ, strigulis plurimis transversis fuscescentibus; posticæ pallide cinereæ."

"55. *Teras meridionana.*

"*Mas.*—Pallide cervina; alæ strigulis plurimis transversis indistinctis obscurioribus; anticæ acutæ; posticæ albido-cinereæ."

The English descriptions which follow are almost as nearly parallel word for word as the Latin. I may add that a careful examination of the typical specimens still further confirms the evidence of their identity. The only appreciable difference between them is stated by Mr. Walker thus :—*T. capensana*, "length of the wings 8 lines"; *T. meridionana*, "length of the wings 9—10 lines". The same difference of size occurs between some of Mr. Gooch's specimens. This species seems to belong without doubt to the genus *Lozotænia*, Herrich-Schäffer, as defined by Heinemann.

Taken "at light on grass." Spring Vale. October, November, and April.

Lozotænia dorsiplagana, n. s. (Pl. X., fig. 2).

Capite antennis et alis anticis subrufescente testaceis. Alis anticis, costa arcuata fascia subobsoleta a medio costæ versus angulum analem oblique projecta; ante eam plaga dorsali elongata quadrangulari sordide albida tenuiter substriata; fascia abbreviata ante apicem; margine apicali cum ciliis aliquot obfuscato. Posticis saturate ochraceo-cinereis.

Head rather reddish testaceous; palpi projecting about the length of the head beyond it, subrostriform. Fore wings with the costa rounded, reddish testaceous, with an indistinct oblique fascia from the middle of the

costa, tending obliquely outwards towards the anal angle, preceded by a dingy whitish elongate quadrangular dorsal patch, which touches its inner edge, and contains a few slender streaks of the darker ground colour coming from the dorsal margin. Beyond the central fascia, about half-way towards the apex, is an abbreviated oblique fascia of the same colour. The apical margin and cilia are slightly darker clouded. Hind wings very pale cinereous-ochreous. Expanse—male, 17 mm.; female, 23 mm.

One male and two females in Mr. Gooch's collection.

Lozotænia diluticiliana, n. s. (Pl. X., fig. 3).

Capite antennis palpis et alis anticis testaceis, medio costæ extremæ dilutiore subochraceo; fascia mediali obliqua macula costali triangulari et margine apicali præcipue in dimidio superiore subpurpurascenti fuscis. Ciliis dilutissime stramineis. Alis posticis dilute griseo-fuscis, ciliis pallidioribus.

Head testaceous; antennæ simple, together with the rather short abruptly attenuated palpi also testaceous. Fore wings testaceous, with an oblique darker (almost purplish fuscous) central fascia more distinct towards the costal margin, clearly defined on its inner edge, but becoming blended with the paler ground colour outwardly, especially below the middle of the wing; a rather triangular costal spot half-way between this and the apex, as well as the apex itself, are of the same colour, which also very narrowly overspreads the apical margin, especially on its upper half. Cilia very pale straw-colour. Hind wings diluted greyish fuscous, with paler cilia. Expanse,14 mm.

One specimen in the British Museum from South Africa, presented by Mr. Roland Trimen.

Lozotænia elegans, n. s. (Pl. X., fig. 4).

Capite cum palpis bis longioribus porrectis ochraceo-griseis. Alis anticis dilute ochraceo-griseis olivaceo subreticulatis; fascia obliqua et macula costali ante apicem triangulare olivaceo-fuscis. Posticis dilute fuscescenti-griseis, puncto costali ante apicem fusco, et linea in medio ciliorum pallidiorum fuscescenti-grisea.

Head, thorax, palpi and antennæ pale yellowish grey, the palpi extending twice the length of the head beyond it, the second joint rather coarsely scaled, tapering outwardly towards the short obtuse apical joint. Fore wings with the costa rather prominently arched near the base, the apical margin slightly oblique, somewhat emarginate about the middle, pale yellowish grey, minutely streaked and slightly spotted with olivaceous scales, giving them a rather reticulated appearance; an olivaceous fuscous outwardly oblique fascia from before the middle of the costa; an elongate triangular costal spot before the apex, and a slight shade near the base of the dorsal margin of the same colour. Hind wings dull greyish, with a slight fuscous costal spot near the apex, and a dull greyish line along the middle of the paler cilia. Expanse, 15 mm.

As compared with the American *Lozotænia peritana* (*Smicrotes peritana*, Clem.), it can only be distinguished by its larger size, longer palpi, and slightly less ochreous colour; the costa is also more arched towards the base.

Four specimens in Mr. Gooch's collection.

Taken at light at Spring Vale in November, and in the Botanic Garden at D'Urban in September and October.

Syndemis, *Hübner.*

Syndemis saburrana, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, pp. 83, 84.
Sciaphila saburrana, Walk., Cat. Lep. Het., B. M., xxviii. 345.

Compsoctena, *Zeller.*

Compsoctena primella (Pl. X., fig. 5).

Compsoctena primella, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, pp. 86—88.
Tissa inquinatalis, Walk., Cat. Lep. Het., B. M., xxviii., pp. 513, 514.
Thapava natalana, Walk., Cat. Lep. Het., B. M., xxx., pp. 995, 996.
Galaria subauratana, Walk., Cat. Lep. Het., B. M., xxxv., p. 1806.

This species is represented in Mr. Gooch's collection

by six specimens, and is probably not uncommon in South Africa.

Professor Zeller, in 1852, founded for it the genus *Compsoctena*, and placed it among the *Tineidæ*.

Mr. Walker, in 1863, re-described it, from a specimen received from Mr. Trimen, under the new generic and specific names, "*Tissa inquinatalis*," pointing out very clearly its essential characters, but failing to recognise it as the insect previously described by Zeller. I have carefully examined Mr. Walker's typical specimen, which he placed among the *Tineidæ*.

Among the addenda to his Catalogue, vol. xxx., p. 995, he characterised the new genus *Thapava*, of which the description agrees in every essential particular with that of the genus *Tissa*, except that whereas of *Tissa* he writes "antennæ subpectinatæ," he describes those of *Thapava* as "pectinatæ," the latter being more decidedly correct. I have been unable to find Mr. Walker's type of *Thapava natalana*, the only species placed by him in this genus, which he referred to the *Tortricidæ*, but his description of it is fairly accurate as applied to a somewhat dark variety of the species before us, and I have no doubt that this species was intended to be indicated. The missing type was received from Natal in Mr. Gueinzius' collection.

Lastly, in vol. xxxv. of the same Catalogue, p. 1806, Mr. Walker creates another new genus, *Galaria*, Walk., and remarks of the one species, which he accurately describes under the name of *Galaria subauratana*, that it "has some affinity to the *Tineidæ*," although he now places it again, as I venture to think with good reason, among the *Tortricidæ*.

The two typical specimens which I have carefully examined, together with those in Mr. Gooch's collection, belong undoubtedly to the same species as the specimen labelled by Mr. Walker, "*Tissa inquinatalis*," and are also part of Mr. Gueinzius' collection.

I will not add anything to the already too copious re-description of this curious and interesting insect. It is very nearly allied to a North American genus, *Synnoma*, Wlsm., of which figures and description are to be found in Part IV. of the 'Catalogue of typical specimens of Lepidoptera-Heterocera in the British Museum,' and which was there placed among the *Tortricidæ* as allied to *Exapate*, Hüb., a genus which

has itself been placed both in the *Tineidæ* and in the *Tortricidæ* by different authors. *Compsoctena* differs from *Synnoma* in neuration, the apical vein of the fore wings not being forked as in that genus.

All the specimens which have come under my notice at present have been males, but it is probable that the females, as in *Synnoma* and *Exapate*, have smaller wings and larger bodies than the males. It would be interesting to know whether it agrees with the allied North American genus in the gregarious habits of its larvæ.

There are six examples in Mr. Gooch's collection. His note upon them is, "Umzinto Beach; in bush. September."

Compsoctena connexalis.

Tissa? connexalis, Walk., Cat. Lep. Het., B. M., xxviii. 514.

This appears to belong to the same genus as the preceding, but is undoubtedly a distinct species.

Conchylis, *Treitschke.*

Conchylis trimeni, F. & R., Reise d. Nov., pl. cxxxvii., fig. 51.

There are four specimens of a large species of *Conchylis* in Mr. Gooch's collection, which, although in very bad condition, I should have no hesitation in referring to the species, figured by Felder and Rogenhofer, under the above name. A description must be deferred until better examples have been obtained.

This species was taken at light at D'Urban and at Spring Vale, in September, October, and November.

Conchylis africana, n. s. (Pl. X., fig. 6).

Capite et palpis ochreis. Thorace brunneo-fusco. Alis anticis dilutissime ochraceo-albidis; plaga basali ante costam finita, fascia ultra-mediali versus angulum analem postice diffusa, macula costali ante apicem, punctis marginalibus in costa, et margine apicali, cum ciliis, brunneo-fuscis; strigulis dilutioribus interjacentibus; posticis dilutissime cinereis-fuscescenti subreticulatis.

Head brownish ochreous. Palpi, projecting fully the

length of the head beyond it, brownish ochreous, somewhat paler on their inner sides, the apical joint touched with fuscous; antennæ pale fuscous; thorax brownish fuscous. Fore wings scarcely emarginate below the apex, very pale whitish ochreous, with a distinct brownish fuscous basal patch covering rather less than a fourth of the dorsal margin, gradually widening towards the costa, but not reaching it; a conspicuous brownish fuscous fascia beyond the middle, more clearly defined on its inner than on its outer edge, and with a slight projection on its inner side within the lower half of the cell; it is slightly wider on the dorsal than on the costal margin, and is indistinctly diffused outwardly below the middle in the direction of the anal angle; a diffused brownish fuscous costal patch lies between the fascia and the apex, and at the apical margin is a series of small dentate spots of the same colour, followed by a slender pale line along the extreme margin. Cilia brownish fuscous, with a slight pale line along their middle; a slight ochreous shade lies immediately below the base of the costa, running parallel to it along the upper edge of the basal patch. The costa itself is brownish fuscous at the base, with spots of the same colour unequally distributed throughout its length, being smaller and more frequent before the middle than beyond it. On the pale portions of the wing between the dark markings are some rather indistinct brownish fuscous dots and streaklets, of which three arising on the dorsal margin before the middle are the most conspicuous. Hind wings very pale cinereous, spotted irregularly with dilute greyish fuscous, giving them a reticulated appearance. Cilia the same colour as the hind wings, with a greyish fuscous line along the middle. Expanse, 16—18 mm.

Three specimens, of which one only is in good condition, taken at light in October at Spring Vale. I have also a specimen from Zululand.

Sericoris, *Treitschke*.

Sericoris scabellana, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 81.

Penthina scabellana, Walk., Cat. Lep. Het., B. M., xxviii. p. 377.

Eccopsis, *Zeller.*

Eccopsis wahlbergiana, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, pp. 79, 80. Walk. Cat. Lep. Het., B. M., xxviii., p. 413.

A single female specimen in Mr. Gooch's collection agrees with the description of this species, except that the costal markings would perhaps be more correctly described as olivaceous rather than ochreous; but as I am unable to compare it with the typical examples, which are believed to be in the Stockholm Museum, its identity must be regarded as somewhat doubtful. If rightly identified it is especially interesting as representing a genus established by Professor Zeller for the reception of this South African species, but more lately adopted by other authors (Lederer, 'Wiener Entomologische Monatschrift,' 1859, 111, p. 288; von Heinemann, 'Schmetterlinge Deutschlands und der Schweiz,' vol. i., pp. 138, 139; Staudinger and Wocke, 'Catalog,' p. 251, No. 1027, &c.) to include *latifasciana*, Haw. (*venustana*, Hüb.), a European species of very remarkable structure, which appears to be undoubtedly congeneric with the numerous North American representatives of the genus *Exartema*, Clemens. As to the identity of *Exartema* and *Eccopsis*, Zeller writes in two footnotes (Verh. z.-b. Ges. Wien. xxv. 268):—

(1) "Wickler in d. Wien Zeitschr. 1859. S. 288, Meine Gattung *Eccopsis* (Micropt. Caffr., p. 79), kann es nicht sein, wenn ihr wirklich der Hautanhang fehlt; ich habe keinen bemerkt, und da ich kein Ex. der Africanischen Art besitze, so wird das Stockholmer Museum am ersten entscheiden können, ob ich ihn übersehen, oder mit Recht unerwähnt gelassen habe."

(2) "So übergenau auch Wilkinson die Länge der Tasterglieder mass und das Flügelgeäder untersuchte, um die schlechten Guenéschen Genera zu begründen, so hat er doch an der ihm ganz wohl bekannten *Latifasciana* den Hautanhang nicht gesehen."

It may be useful to contrast some of the essential points of the two descriptions.

Eccopsis, Zeller (Kong. Svensk. Vetens. Akad., 1852, pp. 79, 80).

Char. essent.—"Alæ posteriores elongatæ margine postico in mare ante angulum analem late exciso

margine abdominali incrassato." Char. natur.—"Alæ anteriores latæ, in femina acutiores quam in mare, pictura sericoridis; posteriores, *angustæ*, acuminatæ margine postico maris ante angulum analem late et rectangulariter exciso, margine interiore incrassato rigido." "Distinguitur alis posterioribus et in mare et in femina multo angustioribus magisque in apicem productis, atque in mare juxta angulum analem late excisis."

Exartema, Clemens (Proc. Ac. Nat. Sci. Phil., 1860, p. 356).

"Fore wings with the costa regularly arched; tip obtuse and rounded; hind margin rounded, very slightly oblique, disc with secondary cell. *Hind wings rather broader than the fore wings*, obtusely angulated on the hind margin opposite the median nervules; inner margin deeply and sharply excised, with a cylindrical appendage along the inner margin from the base, the lower portion of which is free."

The close resemblance of the specimen now before me to the North American species of *Exartema*, both in form and in ornamentation, is remarkable, and it would be interesting to ascertain for certain if the hind wings of the male exhibit any resemblance to the pecular structure which distinguishes that genus; in which case only could Herr Lederer be held to be justified in interpreting the original description of *Eccopsis* as applicable to *venustana*, Hüb., which would probably justify also the substitution by priority of that genus for *Exartema*, Clemens.*

Eccopsis fluctuatana, n. s. (Pl. X., fig. 7).

Capite thorace antennis et palpis grisescentibus. Alis anticis costa fluctuata albidis, a basi ad finem cellulæ

* Since writing the above I have received, through the kind assistance of Mr. W. F. Kirby, a slight sketch of the hind wing of the original male specimen of *Eccopsis wahlbergiana*, described by Zeller, for which I am indebted to Mr. C. Aurivillius, Assistant in the Entomological Department of the State Museum at Stockholm. Although the wing is somewhat narrower and more tapering towards the apex than those of the American species of *Exartema*, this sketch tends strongly to confirm the view that the genera *Eccopsis*, Zeller, and *Exartema*, Clemens, are identical.

fusco adumbratis excepta plaga costali elongata ante medium. Posticis brunneo-fuscis.

Head and thorax greyish; palpi greyish, much shaded on the end of the second joint and on the short apical joint with fuscous. Antennæ greyish. Fore wings (with the costa slightly waved, the apex depressed, the apical margin slightly oblique) whitish, with a strong fuscous patch stretching over nearly two-thirds of their length, having its outer margin oblique and somewhat irregularly defined; an elongated patch of the whitish ground colour running along the costal margin before the middle, extending to the base, surrounded by the fuscous shade, and containing some small fuscous costal spots and streaklets, which are again repeated beyond the middle. Towards the apex is an olivaceous costal shade, and an inconspicuous olivaceous streak crossing from the costa to the middle of the apical margin. Hind wings brownish fuscous, their costal margin whitish. Two females; expanse, 19 mm.

"D'Urban and Spring Vale; to light in garden, September and November."

Having only two female specimens from which to describe this species, it must be somewhat uncertain whether I have rightly placed it in the genus *Eccopsis*. The coloration is almost exactly that of a *Penthina*, but the shape of the wings is remarkably similar to those of the supposed *Eccopsis wahlbergiana*, mentioned above, as well as to those of many species of the North American genus, *Exartema*.*

Aphelia, *Stephens*.

Aphelia lanceolana.

Aphelia lanceolana, Hüb., Wocke Cat., No. 1006.
Bactra stagnicolana, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 84.
Ancylolomia siccella, Walk., Cat. Lep. Het., B. M., xxxv., p. 1750.

I find in Mr. Gooch's collection three specimens, which do not appear to differ in any greater degree from some of the European varieties of *Aphelia lanceolana*,

* See footnote on preceding page.

Hüb., than they differ from each other. Prof. Zeller described his *Bactra stagnicolana* from a single specimen in bad condition, as being "lanceolanæ valde affine sed distinctum alis latioribus, margine postico minus obliquo; linea disci postici recta, non arcuata fractave." The remainder of his description could be fitly applied to one of the more distinctly marked varities which occur in this country.

The characters relied upon by Zeller are not sufficiently maintained in the three examples now before me to justify me in regarding the African species as specifically distinct from the common European form, which has also been recorded from North America.

Mr. Walker has inadvertently placed this species among the *Crambidæ*, describing it under the name of *Ancylolomia siccella*. His specimen agrees entirely with English examples of *A. lanceolana*, which tends to confirm the opinion that the African form is merely a variety of this well-known species.

Mr. Gooch's specimens were taken at Spring Vale, in bush; December, March, and April.

GRAPHOLITHA, *Treitschke*.

Grapholitha spissana, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 82; Walk., Cat. Lep. Het., B. M., xxviii., p. 388.

CARPOCAPSA, *Treitschke*.

Carpocapsa diremptana, Walk., Cat. Lep. Het., B. M., xxviii. 409, 410.

The specimen in the British Museum, from which Mr. Walker's description was taken, has much the general appearance and structure of the genus *Penthina*, but its condition is too bad to warrant a re-description, although a good specimen of the species might easily be recognised by comparison with it.

STEGANOPTYCHA, *Stephens*.

Steganoptycha infausta, n. s. (Pl. X., fig. 8).

Capite, palpis, antennis et thorace brunneo-fuscis subgrisescentibus. Alis anticis elongatis acuminatis,

margine apicali obliquo, obscure brunneo-fuscis; posticis dilute fusco-griseis.

Head, palpi, antennæ and thorax brownish fuscous, with a slight greyish tinge; the palpi projecting about the length of the head beyond it; antennæ simple. Fore wings elongate-acuminate, with the costa slightly rounded; the apical margin oblique; very slightly indented below the pointed apex; unicolorous dark brownish fuscous. Hind wings about the same width as the fore wings; pale greyish fuscous, cilia the same. Abdomen missing. Expanse, 19 mm.

One male. At D'Urban, taken at light.

PHOXOPTERIS, *Treitschke.*

♂ — *Phoxopteris natalana*, n. s. (Pl. X., fig. 9).

Alis anticis falcatis dilute argillaceis; umbra ferruginea externe prope apicem acuminata et strigulis costalibus ante medium fuscis ultra medium dilute argillaceis; margine apicali peranguste fusco, ciliis argillaceis ferrugineo finitis. Posticis cinereis.

Head pale reddish ochreous; palpi projecting about the length of the head beyond it; the apical joint and the surrounding scales which project from the second joint fuscous; antennæ tinged with ferruginous. Fore wings pale argillaceous, much shaded with ferruginous, which forms an acute angle before the falcate apex, leaving on the space above the anal angle a patch of the plain ground colour: this ferruginous shade contains above the middle of the wing and about the end of the cell a longitudinal reduplicated and somewhat diffused blackish fuscous streak, and below it two or three slender diverging lines of the paler ground colour. On the costa before the middle are five or six small oblique fuscous streaks, beyond the middle is a ferruginous shade interrupted by a series of reduplicated pale streaks each centred with a few dark fuscous scales at the base; the first of these streaks follows the upper edge of the ferruginous discal shade from the middle of the costa nearly to its extreme angle near the apical margin, where it almost joins the point of the last streak nearest to the apex; a slender dark fuscous line indicates the apical margin at the base of the pale cilia, which are

tipped with ferruginous. Hind wings pale cinereous. Expanse, 15 mm.

One specimen in Mr. Gooch's collection.

TINEIDÆ.

CHOREUTIS, *Hübner*.

Choreutis bjerkandrella, Thnb., Wocke Cat., No. 1302.
Choreutis vibralis, Zell., 'Isis,' 1847, pp. 23—120.
Choreutis vibrana, var. *β. australis*, Zell., 'Isis,' 1847, p. 643.
Choreutis vibrana, var. *β. Ephemerid*, Entomol. x. 235.
Choreutis australis, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 85.

A single specimen in bad condition is in Mr. Gooch's collection, taken at Spring Vale at light in October. After careful comparison I am quite unable to separate it from the common and well-known European species from which Prof. Zeller at first considered his African *Choreutis australis* to be distinguishable. The name "*australis*" appears to be rightly included as a synonym in the European Catalogue of Staudinger and Wocke.

ATYCHIA, *Ochsenheimer*.

Atychia quiris, F. & R., Reise d. Nov., pl. cxxxix., fig. 36.

PENESTOGLOSSA, *Rogenhofer*.

(*Psilothrix*, Wocke, nomen bis lectum.)

Penestoglossa capensis, F. & R., Reise d. Nov., pl. cxxxix., fig. 31.

SEMIOSCOPIS, *Hübner*.

Semioscopis ? trigonella, F. & R., Reise d. Nov., pl. cxxxix., fig. 39.

TIQUADRA, *Walker*.

Tiquadra goochii, n. s. (Pl. X., fig. 10).

Capite squamis appressis cinereo-griseis. Antennis fortibus. Palpis recurvis obtusis articulis secundo et tertio fasciculatis. Alis anticis elongatis (costa arcuata, apice et margine apicali rotundatis) canis cinereo-fusco

irroratis guttatis et fasciculatis. Alis posticis ovatis cinereo-ochraceis, ciliis pallidoribus.

Head with appressed pale greyish fuscous scales, paler in front and beneath. Antennæ rather stout, not ciliated. Tongue none; ocelli none; maxillary palpi none. Labial palpi recurved, dingy whitish, touched with cinereous on their outer sides, with the second joint tufted beneath, the apical joint shorter than the second and concealed in a tuft of coarse scales. Fore wings elongate (with the apex rounded), dingy whitish, thickly irrorated and speckled with cinereous and fuscous dots, especially conspicuous towards the costal and apical margins, with several groups of raised scales, especially noticeable on the basal half. Hind wings rather shining yellowish cinereous, with paler cilia. Hind tibiæ short, incrassated, densely pilose above having the inner and outer spurs of very unequal length. Abdomen missing. Expanse, 32 mm.

Taken in December at light, in Spring Vale.

The earliest description of any species of this genus, so far as I am able to ascertain, is that of *Tiquadra inscitella*, Walk. (Cat. Lep. Het., B. M., xxviii. 519), from Mexico, from which the African species above mentioned differs only in its larger size, its somewhat wider fore wings, and rather darker shade of colouring. They may possibly be found to be not specifically distinct, although coming from such widely separated localities. *Oscella æneonivella*, Walk., from Venezuela, and *Manchana avitella*, Walk., from Santa Martha, the types of which I have examined, are also evidently congeneric.

Prof. Zeller (Hor. Soc. Ent. Ross. xiii., pp. 196—203) has described four species also from South America, establishing for their reception the genus *Acureuta*, Zell., pointing out that two species, figured by Messrs. Felder and Rogenhofer (Reise d. Nov. pl. 138, fig. 46, and pl. 139, fig. 50), placed by these authors in the genus *Scardia*, Tr., belong to the same genus. The two figures referred to evidently represent this very distinct and remarkable form, which furnished Mr. Walker with material for the formation of his three genera, *Tiquadra*, *Oscella*, and *Manchana*; but it is not within the scope of the present paper to determine how many distinct species have actually been described, or how many names should rank only as synonyms.

The remarkable fact with which we are at present concerned is that a species, differing in no essential particular from the South American representatives of the genus, has been found by Mr. Gooch in South Africa; and this is the more remarkable since it is known to be associated there with *Eustixis flavivittella*, *Eccopsis wahlbergiana*, Zell., and *Compsoctena primella*, Zell., as well as with several species of *Cryptolechia*, whose representatives in the New World are also so nearly allied to them in structure and appearance.

I have received, through the kindness of Mr. H. Doer, of Rio Janeiro, amongst other interesting Lepidoptera, two specimens, which he considered to be male and female of the same species, the female being evidently a species of *Tiquadra*, the male (?) presenting the same peculiarities as the next species, figured and described in this paper under the name *Ischnopsis angustella*. To such a remarkable degree does it approach it that, on finding the same two forms in Mr. Gooch's African collection taken in the same locality and within a few days of each other, I was induced to make some further enquiries into the sufficiency of the evidence from which the suspicion of their relationship to each other had arisen. Mr. Doer is unable to assure me on this point; and as both sexes of *Tiquadra* have been noticed, both by Prof. Zeller and Mr. Walker, I have been compelled to regard the supposition as erroneous, although I have placed them provisionally in juxtaposition in systematic order. It is at least a very curious double additional instance of similarity between South African and South American Lepidoptera. Prof. Zeller states that the larva of a species of this genus is a case-bearer.

Ischnopsis, n. g.

Caput latum; antennæ articulo basali infra ciliato. Palpi labiales porrecti, acuminati; articulo secundo incrassato nec fasciculato; haustellum nullum. Alæ anticæ et posticæ elongatæ, lanceolatæ et acuminatæ; posticæ costa post-medium emarginata; cilia longiuscula. Tibiæ posticæ longæ, supra et infra pilosæ, calcaribus valde inæqualibus.

Head broad; antennæ with the basal joint fringed below. Labial palpi porrected (not recurved), pointed;

the second joint thickened, not tufted. Proboscis none. Fore wings and hind wings elongate, lanceolate, acuminate. Cilia very long. Hind tibiæ long, hairy above and beneath, with the inner spurs a good deal longer than the outer ones.

Ischnopsis angustella, n. s. (Pl. X., fig. 11).

Capite sordide cano squamis appressis. Palpis et antennis sordidis. Alis anticis dilute cinereis, griseofusco in longitudine lineatis. Posticis dilute cinereo-ochraceis antice infuscatis. Ciliis et tibiis posticis dilutioribus.

Head dingy whitish, with appressed scales. Palpi with the second joint slightly thickened, roughly scaled, but not tufted; apical joint not half as long as the second joint. Antennæ simple, three-fourths of the length of the fore wings; the basal joint fringed beneath. Fore wings elongate, acuminate, pale cinereous, with indistinct slender lines of greyish fuscous throughout their length. Hind wings pale cinereous-ochreous, shaded anteriorly with fuscous, elongate, acuminate, the costal margin appressed towards the apex. Cilia paler. Hind tibiæ very densely pilose above. (?) Male. Expanse, 28 mm.

Two examples in Mr. Gooch's collection, taken at light at Spring Vale in January.

EUPLOCAMUS. *Latreille.*

Euplocamus stupens, Wallgr., Öf. Af. Kongl. Vet. Akad. För., 1875, Arg. 32, pp. 127, 128.

Euplocamus horridellus.

Tinea horridella, Walk., Cat. Lep. Het., B. M., xxviii. 474.

This large and distinct species is represented in Mr. Gooch's collection by nine specimens, varying greatly in size, the largest reaching an expanse of 32 mm., the smallest only 18 mm. I have a specimen in my own collection, given to me by Mr. Druce, from Bedford, South Africa. It is rather remarkable that so conspicuous an insect, and one which appears to be not

uncommon, should not have been contained in the collections described by Prof. Zeller and Mr. Stainton, but I have been unable to recognise it in any of their descriptions. Its upturned palpi, with the second joint roughly clothed with projecting coarse scales, separate it from the true *Tineæ*. It differs in this respect from *Tinea vastella*, Zell., which was originally placed in the genus *Euplocamus* (subgenus *Scardia*) by Prof. Zeller, although not so by Mr. Stainton.

Taken in October, November, and December, at light, in Spring Vale.

TINEA, *Zeller*.

Tinea vastella.

Euplocamus (*Scardia*) *vastellus*, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 88; Haliday, Nat. Hist. Rev., vol. iii., Proc. Dublin Zool. Assn., December 21, 1856, p. 23, pl. i.

Scardia vastella, Walker, Cat. Lep. Het., B. M., xxviii. p. 463.

Tinea gigantella, Stainton, Trans. Ent. Soc. Lond., n. s., 1867, vol. v., p. 221; Trans. Ent. Soc. Lond., 3rd ser., vol. v., part 8, p. cv.; Wallengren, Öf. Af. Kongl. Vet. Akad. För., 1875, Arg. 32, p. 128; Proc. Ent. Soc. Lond., 1878, p. li.; Ent. Mon. Mag., vol. xv., p. 133; Walk., Cat. Lep. Het., B. M., xxxv., p. 1812.

Tinea lucidella, Walk., Cat. Lep. Het., B. M., xxx., xxviii. p. 474.

Two examples of this interesting species, varying in the expanse of the fore wings from 28 to 32 mm., are in Mr. Gooch's collection. I have received it also through the kindness of Mr. H. Druce, whose specimens were collected at Bedford in South Africa. Professor Zeller's original description contains no allusion to the habits of the larva, and I have had some difficulty in tracing the evidence upon which the identity of this species, with the horn-feeding larva of South Africa, has been generally accepted.

Mr. Kirby has called my attention to what appears to be the earliest mention of the habits of this larva in the 'Natural History Review,' vol. iii., 1856, where, at p. 23 of the Proc. of the Dublin Zool. Association, I find the following:—

"Mr. Haliday made some remarks on two pairs of antelope's horns, exhibited to the meeting by J. M. Neligan, M.D. These horns—belonging, one pair to *Oreas canna* (pl. i., fig. 3), the other to *Kolus ellipsiprymnus*—were brought home from the Gambia by J. Fitzgibbon, Esq., M.D., who lately purchased them from some natives in the market at Macarthy's Island, being struck with their appearance, as they were perforated by grubs enclosed in cases which projected abundantly from the surface of the horns, although these were taken from freshly-killed animals, the blood not having dried up on them when brought to market."

When first examined by Dr. Neligan, at Dublin, they contained "larvæ plump and fresh;" but when Mr. Haliday first saw them they were "shrivelled up." The largest is described as "nearly an inch long, with the body of a pale colour, without distinguishable markings; the head, the terminal segment, the legs, the ring of the prothoracic spiracles, and the hooklets of the prolegs, dark chestnut, tending to black on the head." The structure is described as "not inconsistent with the probability that it belonged to some of the *Tineidæ*." "The most remarkable point was the evidence that the horns had been thus infested while the animal was yet living which bore them."

"The President showed some horns of the Gayal, from University Museum, more extensively perforated by a similar larva."

It will be observed that on this occasion no specimens of the perfect insect were obtained.

On the 6th of November, 1878, Mr. Stainton exhibited, at the meeting of this Society, specimens of "a *new* horn-feeding *Tinea* (*T. orientalis*), reared from horns from Singapore, allied to the *well-known large species* from South Africa, of which the larvæ fed in the horns of living buffaloes and antelopes, and *which had been described* by Zeller under the name of *Vastella*, and subsequently by himself under the name *Gigantella*." "Mr. Simmons, of Poplar, who found them in his greenhouse, was quite at a loss to account for their appearance, till Mr. Stainton suggested they were horn-feeders, when he remembered a piece of horn placed on a shelf and forgotten, but which, when examined, showed evident traces of having been eaten, and from which pupa-skins had been obtained."

The description of *Tinea orientalis* was published with full particulars in Ent. Mo. Mag., xv. 133.

On reading this report of the meeting I instituted a diligent search for the description of the habits of *Scardia vastella*, Zell. The only further allusion to a horn-feeding *Tinea* larva which I could find was in the Proc. Ent. Soc. Lond., 1867, p. cv., where Mr. Stainton "records a new habit for the larva of a *Tinea*. Mr. Swanzy had shown him the larva-case of a *Tinea* which was taken from the horn of a Kooloo, from Natal, and there could be little doubt that the larva must have been burrowing in the horn of the living animal." Mr. Swanzy added, "that since Mr. Stainton's visit he had found a living larva in the horn."

"Mr. Trimen had seen the skull of a harte-beest, the base of which was eaten by what he had no doubt was the larva of a *Tinea*."

Being unable to find any published reference of the African horn-feeding larva to the species described by Zeller and Stainton, I referred the question to Mr. Stainton for his kind assistance. In a letter, dated December 16th, 1880, which I gratefully acknowledge, he writes:—

"I suspect that the identity of the horn-feeding *Tinea* and *T. vastella* has never appeared in print. I enclose you extracts from my correspondence with Zeller on the subject; he evidently then thought that Rogenhofer, of Vienna, was going to write on the subject, which possibly he never has done."

From these extracts I gather that in 1873 Professor Zeller received from Herr Rogenhofer one male and two females, with two larvæ and one pupa of a moth, the caterpillar of which lives in the horns of buffaloes at the Cape, the specimens agreeing exactly with *Scardia vastella*, Zell., and that he took them to be identical with a species which is common at the Cape in rotten bones.

In a subsequent letter, discussing the geographical distribution of the species, Prof. Zeller writes:—

"Somit bleibt Südafrica das Vaterland, wenn die Art nicht künstlich verpflanzt wird, was ich für gut ausführbar halte; nur wird der Aufenthalt wahrscheinlich nicht anderswo sein können, als wo unverarbeitete Hörner von Wiederkäuern aufbewahrt werden. Das die Raupe am gesunden Horn des lebenden Thieres vorkomme, ist nur nicht recht wahrscheinlich; ich nehme den faulenden

Kopfknochen, wovon noch Reste am Horne sitzen, als das eigentliche Futter an."

It is probable that this unpublished correspondence was the cause of Mr. Stainton's suggestion to Mr. Simmons, in 1878, that the large *Tinea* found in his conservatory at Poplar was possibly a horn-feeder.

I have in my own collection a pair of horns of *Kolus ellipsiprymnus*, given to me by the late Col. Harvey Tower, which are bored by the larvæ of this species, the substance of the horn itself being visibly perforated in several places up to one-fourth from the base; the pupa-cases protruded from the holes when I received them. The small portion of the skull still attached to the horns is not perforated, but has the appearance of having been much exposed, conveying the impression that the specimen may have been obtained by purchase, rather than killed in the course of Col. Tower's hunting expedition. I have also a very old pair of horns of an Indian buffalo, perforated in the same manner.

I am informed by Lieut.-Col. the Hon. Wenman Coke, who has shot very large numbers of various species of horned animals in South Africa, that he has never seen the horn of a living animal perforated by one of these larvæ, although almost every dead horn that has been exposed to the open air is found to be attacked by them. He has not observed any traces of similar larvæ in the neighbourhood of Zanzibar or Lake Nyassa, where he has also hunted; but it seems extremely probable that it may also occur there.

Colonel Coke is most confident that the larva never attacks a living animal; he assures me that had this been the case it could not have escaped his observation.

Mr. Roland Trimen, to whom also I have spoken on the subject, concurs in expressing great doubt as to the correctness of the theory that the larva feeds in the horns of living animals; on the other side, we have the strong evidence of Dr. Fitzgibbon; and as the fibrous substance of the horn undergoes little or no change at the death of the animal, there seems to be no reason why the moth should not deposit its eggs when the living animal is at rest, nor why the larva should not penetrate the horn; but the question must be considered to be "sub judice."

Mr. Walker has described this species under the name of *Tinea lucidella*.

Mr. Gooch's specimens were "taken at Spring Vale in December among trees."

Since writing the above I have been informed that some specimens of this species have been reared in England from the hoof of a horse lately brought from Zululand. (Proc. Ent. Soc. Lond., 1881, p. viii.)

Tinea abactella, Walk., Cat. Lep. Het., B. M., xxviii. 476.

The specimen from which Mr. Walker's description was taken is in such bad condition as to be utterly unrecognisable.

Tinea incultella, Walk., Cat. Lep. Het., B. M., xxx. 1003.

T. purpurea, Stn., Trans. Ent. Soc. Lond., n. s., vol. v., p. 221; Walk., Cat. Lep. Het., B. M., xxxv. 1812.

T. fuscipunctella, Haw., Wocke Cat., No. 1404.
T. abligatella, Walk., Cat. Lep. Het., B. M., xxviii. 476.
T. ignotella, Walk., Cat. Lep. Het., B. M., xxx. 1003. ♀

Having carefully examined the typical specimens described by Mr. Walker under the above names, I am unable to separate them from the common European *T. fuscipunctella*, Haw.

Tinea farraginella, Zell., Handlingar Kong. Svensk. Vetens. Akad. 1852, pp. 90, 91; Walk., Cat. Lep. Het., B. M., xxviii. 473.

T. damnificella, Zell., Handlingar Kong. Svensk. Vetens. Akad. 1852, p. 91; Walk., Cat. Lep. Het., B. M., xxviii. 473.

Tinea ? erinacea (Pl. XI., fig. 12).

Tinea erinacea, Walk., Cat. Lep. Het., B. M., xxviii. 475.

It seems desirable to add to Mr. Walker's description some further observations founded upon a careful examination of this most curious insect.

The word "Mas" at the commencement of Mr. Walker's Latin description is evidently a mistake, the specimen being correctly described in English as a "Female," and as having its "oviduct exserted." It possesses such peculiarities as might perhaps with good reason be considered to distinguish it as the type of a new genus; but I shall confine myself for the present to a short re-description of the single example in the British Museum, which appears to differ in the character of its ornamentation from any known Lepidopterous insect.

Head rough, pale cinereous; palpi short, scarcely projecting beyond the coarse frontal scales. Antennæ simple, nearly as long as the fore wings. Tongue not visible. Maxillary palpi obsolete. Fore wings subovate, elongate, with the apex slightly rounded, shining, very pale yellowish cinereous, streaked with greyish fuscous, the apex having a bright ferruginous tinge. About the surface of the fore wings are scattered several pale whitish straw-coloured tufts of elongate hair-like scales, perhaps best described by the German "haar pinsel." These are distributed as follows:—Four immediately below the costal margin, of which one is about one-third from the base, one about the middle, one rather beyond the middle, and one on the apical third; below these are two at the end of the cell, one above the other, one on the middle of the cell, and one immediately below and before the apex; about four others are ranged immediately above the dorsal margin. Some of these hair pencils are as much as two millimetres in length, and Mr. Walker adds, from Mr. Gueinzius' MSS., "This moth carries the bristles of the wings erect when alive." The cilia are very long; the hind tibiæ clothed with long hairs on both sides; the ovipositor extruded to one-fourth the length of the abdomen.

Blabophanes longella.

Tinea longella, Walk., Cat. Lep. Het., xxviii., p. 479.
Blabophanes longella, Butler, Ann. Mag. Nat. Hist., April, 1881.

Two specimens in Mr. Gooch's collection agree with this Northern Indian species described by Mr. Walker, except in the colour of their heads, which, as noticed by Mr. Butler (*l. c.*), are more decidedly yellow.

Mr. Gooch writes of this species :— "Spring Vale. Bred in skins in the verandah. Came to light February."

Blabophanes speculella.

Tinea (*Blabophanes*) *speculella*, Zell., Handlingar Kong. Svensk. Vetens. Akad. 1852, p. 89; Walk., Cat. Lep. Het., B. M., xxviii. 474.

Blabophanes rejectella.

Tinea rejectella, Walk., Cat. Lep. Het., B. M., xxx. 1003.

? *Blabophanes pellucida*, Wallgr., Öf. Af. Kongl. Vet. Akad. För. 1875, p. 128.

Three specimens in Mr. Gooch's collection correspond precisely with the type in the British Museum, which seems to differ from Mr. Stainton's *Tinea rutilicostella* in much the same particulars as those stated by Herr Wallengren as separating his *Blabophanes pellucida* from that species.

Blabophanes rutilicostella.

Tinea rutilicostella, Stn., Trans. Ent. Soc. Lond., n. s., vol. v., p. 221; Walk., Cat. Lep. Het., B. M., xxxv. 1812.

Nemophora, *Hübner.*

Nemophora (*Nemotopogon*) *crinigerella*, Zell., Lin. Ent. v. 347; Handlingar Kong. Svensk. Vetens. Akad. 1852, p. 92; Walk., Cat. Lep. Het., B. M., xxviii. 497.

Mr. Gooch's collection contains one specimen.

Nemophora elongatella, n. s. (Pl. XI., fig. 13).

Capite thorace et antennis cum alis anticis perelongatis, dilute albido-cinereis puncto ad finem cellulæ punctisque, marginalibus sex costalibus septem apicalibus cinereis, aliis minoribus cum squamis concoloribus undique dispersis.

Head, thorax, and antennæ whitish drab; the antennæ nearly three times the length of the fore wings. Fore

wings much elongated, fully four times as long as wide, pale whitish drab, with a series of small cinereous marginal spots, of which six are costal, being placed gradually closer to each other as they approach the apex, and seven or eight others are on the apical margins reaching round to the anal angle; a spot of a similar colour lies at the end of the disc, and several smaller cinereous dots and scales are scattered more or less conspicuously over the surface of the wing; hind wings scarcely shining, very pale cinereous. Expanse, 19 mm.

Two males.

"D'Urban (West Park); in bush, afternoon, July."

Nemophora turpisella, Walk., Cat. Lep. Het., B. M., xxviii., p. 497.

Mr. Gooch's collection contains six specimens of this species. I have also a specimen in my own cabinet from Bedford, S. Africa, for which I am indebted to the kindness of Mr. Herbert Druce.

The base of the costal margin of the fore wings is distinctly brown, the "three irregular brown lines" described by Mr. Walker forming oblique disintegrated fasciæ, tending outwards from the dorsal to the costal margin. Hind wings brownish, much darker than in the following species.

These came to light at Spring Vale in November and December.

Nemophora alternipunctella, n. s. (Pl. XI., fig. 14).

Capite albo subfusco irrorato; antennis quam alis anticis ter longioribus albidis. Alis anticis albis, brunneo-fusco profuse punctatis et maculatis. Striga angusta in basi costæ, maculis tribus costalibus tribus dorsalibus alternantibus brunneo-fuscis. Posticis dilute subochraceo-cinereis dimidio postico ciliorum dilutiore.

Head white, speckled with fuscous. Antennæ dingy whitish, three times the length of the fore wings. Fore wings rounded, white, profusely dotted with brownish fuscous, with a narrow brownish fuscous streak along the base of the costa, and three costal and three dorsal brownish fuscous spots placed alternately, each dorsal spot being placed before the corresponding spot on the

costa. The third dorsal spot near the anal angle is slightly projected upwards, the second and third costal spots somewhat elongate and inverted; a few fuscous scales appear to mark an obsolete oblique fascia-like streak between the first dorsal and the first costal spots. Hind wings very pale yellowish cinereous, the outer half of the cilia being even paler. In one variety in my own collection the first dorsal spot is joined to the first costal, and the third dorsal to the second costal. Expanse, 18—19 mm.

One specimen in the British Museum from South Africa, collected by Mr. Wilson.

Nemophora trigoniferella, n. s. (Pl. XI., fig. 15).

Capite et thorace albis; antennis annulatis. Alis anticis albis, margine costali æneo-brunnea, apicali aureo-flavo, linea in basi ciliorum brunnea; plaga majore dorsali elongato triangulare æneo-brunneo, et strigulis supra angulum analem cum aliis costalibus per lineam argenteam connexis chalybeo-brunneis. Ciliis albidis dimidio exteriore æneo-brunneo.

Head and thorax white; palpi short and slender, not reaching beyond the face. Antennæ three times the length of the fore wings, annulated, with the basal joint thickened and hairy. Fore wings white, the costal margin conspicuously shaded with golden bronzy scales; a large elongate clearly-defined bronzy-brown patch commencing near the base of the dorsal margin, increasing in width somewhat abruptly at its commencement, then gradually, until it forms an acute angle above and beyond the middle of the wing, and ends abruptly somewhat beyond the middle of the dorsal margin, its outer edge being scarcely oblique, the apical margin golden yellow, with a bronzy-brown line at the base of the cilia, and three or four bluish bronzy streaks pointing inwards immediately above the anal angle, connected with three bronzy brown costal spots by a silvery metallic streak. Cilia whitish, tipped with bronzy brown. Hind wings shining pale bronzy brown. Expanse, 16—17 mm.

Two males in Mr. Gooch's collection.

I should not have ventured to describe this species from the two greatly damaged specimens in Mr. Gooch's

collection had it not been so remarkably distinct from any other known species in this or any allied genus, and thus, I hope, easily distinguishable, in spite of some probable imperfections in the description.

Ceromitia, *Zeller.*

Ceromitia Wahlbergi, Zell., Handlingar Kong. Svensk. Vetens. Akad. 1852, pp. 93, 94; Stn., Trans. Ent. Soc. Lond., n. s., vol. v., p. 222; Walk., Cat. Lep. Het., B. M., xxx., pp. 506, 507.

There are four specimens of this beautiful and distinct species in Mr. Gooch's collection, taken in "October, November, and December at light." I received it also from Natal through the friendship of the late Colonel Harvey Tower, Coldstream Guards.

Adela, *Latreille.*

Adela natalensis, Stn., Trans. Ent. Soc. Lond., n. s., vol. v., p. 221; Wlsm., P.Z.S. Lond., 1880, 78.
A. albicornis, Walk., Cat. Lep. Het., B. M., xxviii., pp. 501, 502.

Three specimens of this species are in Mr. Gooch's collection. As Mr. Stainton has remarked, it is very distinct from any other known species of *Adela*.

Adela ? electella.

Micropteryx ? electella, Walk., Cat. Lep. Het., B. M., xxviii., p. 495.

Mr. Walker's type of *Micropteryx ? electella* is glued to a card with the wings laid back unspread. Its antennæ are rather longer than the fore wings, a character which would at once suffice to separate it from the genus *Micropteryx*, to which it certainly does not belong. Its purple fore wings, with a distinct yellowish white transverse fascia, remind one very strongly of *Adela natalensis*, Stn., but its much smaller size and the absence of a pale costal spot distinguish it from that species, even if it may be rightly included in the same genus.

I am not aware that the female of *A. natalensis* has yet been observed, but, although the difference between the sexes of the *Adelidæ* are in some cases remarkable,

there is no evidence at present to support a conjecture that *Adela ? electella* may prove to be the female of *A. natalensis*; indeed, the great difference of their respective sizes renders it at least improbable, but, in view of their similarity, it is worthy of notice that the specimen is mounted in such a way as to render it apparently impossible to determine its sex, although Mr. Walker considered it to be a male; and moreover, that his examples of *A. albicornis*, which (as I pointed out in the 'Proceedings of the Zoological Society,' London, February, 1880, p. 78), is a synonym of *Adela natalensis*, Stn., were received in the same collection and from the same locality as his *Micropteryx ? electella*.

HYPONOMEUTA, *Zeller*.

Hyponomeuta africanus, Stn., Trans. Ent. Soc. Lond., n. s., vol. v., p. 222; Walk., Cat. Lep. Het., B. M., xxxv., p. 1824.

Hyponomeuta subplumbellus, n. s. (Pl. XI., fig. 16).

Capite palpis et antennis plumbeis. Thorace plumbeo, maculis quinque nigris in margine dispositis. Alis anticis angustis elongatis subnitentibus punctis nigris seriatim dispositis quinque sub costa ultra medium productis quinque supra plicam et quinque supra marginem dorsalem minus extensis; aliis minoribus ante apicem singulis. Posticis plumbeo-cinereis quam anticis vix latioribus.

Head, palpi, and antennæ lead-colour, the face slightly paler. Thorax lead-colour, with five black spots, two on each side, and one at the back. Fore wings lead-colour, slightly shining, with three rows of about five small black dots, one below the costa reaching beyond the middle, and one on each side of the fold reaching scarcely beyond the middle, one or two smaller black dots beyond the end of the cell. Hind wings slightly wider than the fore wings, leaden grey (not black). Expanse, 18 mm.

One specimen in Mr. Gooch's collection.

This species is nearly allied to *Hyponomeuta vigintipunctatus*, Retz., but the fore wings are narrower and more elongate, the spots smaller and not so numerous;

it is also somewhat similar in the arrangement of its spots to *Hyponomeuta fumigatus*. Zeller. The most noticeable points of Professor Zeller's description, which, in addition to its larger size, seem to separate his species from the one before us, are as follows:—"Alæ anteriores fumidæ *sine ullo nitore*," "alæ posteriores *multo latiores*," "*nigræ*."

Hyponomeuta fumigatus, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, pp. 101, 102; Stn., Trans. Ent. Soc. Lond., n. s., vol. v., p. 222; Walk., Cat. Lep. Het., B. M., xxxv., p. 1824.

Hyponomeuta strigillatus, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 102; Walk., Cat. Lep. Het., B. M., xxviii., p. 531.

Hyponomeuta perficitellus. (Pl. XI., fig. 17).

Walk., Cat. Lep. Het., B. M., xxviii., pp. 531, 532.

Represented in Mr. Gooch's collection by a single specimen. It agrees very closely with Professor Zeller's description of the preceding species, *H. strigillatus*, in which, however, some of the spots would appear to be connected in the form of streaks. The "fovea pellucida valde insignis" of the hind wings mentioned by Zeller is particularly noticeable also in this species.

Psecadia, *Zeller*.

Psecadia circumdatella.

Hyponomeuta circumdatellus, Walk., Cat. Lep. Het., B. M., xxviii., p. 532.

Psecadia circumdatella, Zell., Hor. Soc. Ent. Ross., xiii. 235.237

P. livida, Zell., Handlingar Kong. Svensk. Vetens, Akad., 1852, pp. 103, 104; Walk., Cat. Lep. Het., B. M., xxviii., p. 537.

There are several specimens of different sizes in Mr. Gooch's collection which, without doubt, belong to this species. They were taken at light at Spring Vale in October. Two of these are of a paler, more yellowish, variety than the others, but cannot be considered distinct. The species seems to be at least allied to the genus

Azinis, Walk., in which the abdominal margin of the hind wing is considerably widened and extended.

Psecadia languida.

Psecadia (*Coptoproctis*) *languida*, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, pp. 105, 106.
P. languida, Walk., Cat. Lep. Het., B. M., xxviii., p. 537.

Psecadia rufiventris.

Psecadia (*Gymnogramma*) *rufiventris*, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, pp. 104, 105.
P. rufiventris, Walk., Cat. Lep. Het., B. M., xxviii.. p. 537.

Eustixis, *Hübner.*

Eustixis flavivitella, n. s.

Capite flavo antennis flavidis articulo basali carnoso, palpis brevibus; haustello mediocre nudo. Thorace flavo, postice carnoso tincto. Alis anticis roseo-carnosis. Striga dorsali a medio basi ante angulum analem antice oblique projecta flava. Posticis subroseis.

Head yellow; palpi yellowish, touched with rosy pink. Antennæ yellow, the basal joint rosy flesh-colour. Thorax yellow, tinged with rosy flesh-colour posteriorly, and on the middle of the patagia. Fore wings bright rosy flesh-colour, with a yellow streak commencing at the middle of the base, leaving a small rosy space at the extreme base of the dorsal margin below it, beyond which it follows the dorsal margin nearly to the anal angle, throwing up an outwardly oblique attenuated projecting streak beyond the middle of the wing. Hind wings, cilia, and abdomen rosy pink. Hind legs yellowish, the first pair strongly tinged with rosy flesh-colour. Under side of fore wings bright rosy red; hind wings paler. Expanse, 19 mm.

One specimen from Bedford, South Africa, given to me by Mr. H. Druce. I find other specimens at the British Museum, from the Cape, labelled "*intactella*" in Mr. Walker's handwriting, but apparently undescribed by him.

This is another remarkable instance of similarity between African and American genera. The genus

Eustixis of Hübner is easily recognisable by his figure of the North American *Eustixis pupula* in the 'Sammlung exotischer Schmetterlinge Zuträge,' figs. 489, 490. This species was subsequently described by Walker under the name of *Mieza subfervens*, and placed by him among the *Lithosidæ*. Messrs. Grote and Robinson (Cat. Lep. N. Am., 1868), restored to it the generic name *Eustixis*, under which it was figured by Stretch ('Zygænidæ and Bombycidæ, N. Am.,' Pl. vii., fig. 17), still among the *Lithosidæ*. Zeller then re-described it as *Enœmia psammitis*, rightly regarding it as allied to the genus *Psecadia*, among the *Tineidæ* (in the subdivision *Hyponomeutina*). The African species, although specifically distinct, is undoubtedly congeneric with those of North America.

DEPRESSARIA, *Haworth*.

Depressaria trimenella, n. s. (Pl. XI., fig. 19).

Capite subochraceo, capillis fuscis; palpis subochraceis, articulo apicali fusco bicincto, apice extremo fusco. Alis anticis dilute ochraceis subbrunneo partim suffusis. Plaga costali post medium versus apicem projecta nigricante, puncto nigro discali nonnunquam attingente punctis parvis in costa et in margine apicali nigricantibus. Posticis dilute cinereis.

Head and thorax pale ochreous, the raised scales on the crest touched with fuscous. Palpi pale ochreous, the second joint touched with fuscous on its outer side, the apical joint with two fuscous rings, its extreme apex also touched with fuscous. Antennæ tinged with fuscous. Fore wings pale ochreous, partly suffused with a pale brownish shade, especially on the lower half of the wing before the middle, at the extreme end of the cell, and immediately above the anal angle. A large blackish patch commences at the middle of the costa, and is continued more than half-way to the apex, extending nearly half across the wing, where it ends at its inner angle in a conspicuous black spot, preceded by some detached black scales (the spot is absent in the smaller specimens). Before this patch are three or four blackish spots on the costa, other smaller ones being distributed around the apical margin. Hind wings pale cinereous. Expanse, 11—20 mm.

Four specimens in the Gooch collection, one of which was taken at light at Spring Vale in January.

Depressaria ? acerbella.

Depressaria acerbella, Walk., Cat. Lep. Het., B. M., xxix., p. 564.

The typical specimen has lost its body and palpi; a redescription of it would, therefore, be useless. It does not appear to me to belong to the genus *Depressaria*, but, for the reasons above stated, it would be rash to suggest to what genus it might more properly be transferred.

ENICOSTOMA, *Stephens*

Enicostoma coarctata, n. s. (Pl. XI., fig. 20).

Capite antennis et palpis obscure fusco-griseis, palpis articulo secundo supra squamis elongatis subfasciculato, fusco-griseis. Alis anticis fusco-griseis, punctis duobus scabris ante medium uno in cellula, uno in plica nigris. Posticis quam anticis vix dilutioribus.

Head, thorax, antennæ, palpi, and fore wings dark fuscous-grey, the palpi with the second joint thickened on the upper side, with a somewhat appressed tuft of long scales slightly more developed than in the allied European species, *Enicostoma lobella*, W. V.; the apical joint slender, acuminate, recurved. Fore wings narrower than in *E. lobella*, of nearly the same dark fuscous-grey colour, but with only two raised dots of blackish scales, one on the disc before the middle, the other on the fold straight below it. In one specimen is a faint indication of a third spot towards the end of the cell. Hind wings and abdomen scarcely paler than the fore wings. Expanse, 15 mm.

One specimen from Spring Vale.

CRYPTOLECHIA, *Zeller*.

Cryptolechia stramineella. (Pl. XI., fig. 21).

Cryptolechia stramineella, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 107.

Cryptolechia straminella, Walk., Cat. Lep. Het., B. M., xxix., p. 745.

(Nec *C. straminella*, Walk., Cat. Lep. Het., B. M., xxix., p. 722.)

There are five specimens of this species in Mr. Gooch's collection. It is especially interesting, as being the

typical species for which Professor Zeller originally founded the genus *Cryptolechia*. The acute apex of the fore wings conspicuously distinguishes it from the great majority of American species which have since been included in this genus by Zeller himself, as well as by other authors. It may be well to trace the history of the genus, which will amply account for the somewhat cumbrous proportions to which it has now attained.

In 1852 (Handlingar Kong. Svensk. Vetens. Akad., p. 106), in a paper entitled "Microptera Caffrariæ," Professor Zeller thus characterised the genus *Cryptolechia* :—

"Char. essent.—Alæ latæ, anteriores *acutangulæ*. Abdomen convexum, superne non marginatum, in mare utrinque ciliatum, ciliis deflexis. Char. natural.—Capilli depressi, in occipite interdum suberecti. Ocelli nulli. Antennæ setaceæ, alis anterioribus breviores, in mare pubescentes, vel ciliatæ. Palpi maxillares breves, tenues, acuti, conniventes. Palpi labiales recurvi; thorace longiores articulo secundo compresso, subtus laxe squamato vel piloso terminali setaceo, lævigato, acuto. Haustellum breve. Abdomen convexum, superne non marginatum, pilis lateralibus in mare longioribus pendulis *marginem ventralem formantibus*. Alæ latæ *anteriorum apex acutus*, angulus dorsalis distinctus, sed rotundatus; posteriorum margo posticus ante apicem convexus ante angulum analem non sinuatus."

Subsequently, in the 'Linnæa Entomologica,' vol. ix., pp. 353, 354, he re-characterised the genus *Cryptolechia* thus :—

"Char. essent.—Palpi longi reflexi corniformes. Antennæ abdominis longitudine, ♂ ciliatæ. Alæ aut costa prope basim convexa, posteriores latæ costa, ♂ simplice, margine postico ante apicem retuso breviter ciliatæ. Abdomen dorso carinato convexum. Char. naturalis.—Caput squamis decumbentibus, ocellis nullis, oculis majusculis. Antennæ abdominis longitudine vel longiores, articulis confertis, ♂ ciliatæ. Haustellum mediocre, basi squamata. Palpi maxillares breves filiformes conniventes. Palpi labiales, thorace longiores, reflexi, modice incrassati, articulo terminali setaceo acuminato. Pedes mediocres, tibiæ posticæ in dorso longius pilosæ, calcaribus validis. Abdomine modice longum, convexulum, dorso distincte carinatum, postice planum ac subcoarctatum, fasciculo ♂ anali mediocri.

Alæ anteriores latiusculæ, tortriciformes, costa prope basim convexa postice rectilinea vel modice convexa, *apice acuto vel obtuso vel obtuse rotundato* ; venæ simplices. Alæ posteriores *amplæ*, breviter ciliatæ, costa vix convexula, margine postico ante apicem impresso, venis simplicibus."

This considerable extension of the distinguishing characters of the genus enabled him to include in it such forms as that of *Cryptolechia sesquitertia*, Zell. (Lin. Ent. ix., pl. 111, f. 20), an insect apparently differing more widely from the original African type than from the allied genera, *Auxocrassa*, *Mesoptycha*, and *Antœotricha*, also then for the first time defined by the same author.

Mr. Walker (Cat. Lep. Het., B. M., xxix., p. 722), has described another species of this genus from Ega under the name *Cryptolechia straminella*, Walk., and subsequently, in the same volume of his 'Catalogue' (p. 745), has spelt the name of Zeller's African species in the same way, whereas it was originally spelt "*stramineella*." The distinction is scarcely sufficient to justify the retention of Mr. Walker's name for the South American species, which in any future revision of the genus should certainly be re-christened.

Cryptolechia obliquella, n. s. (Pl. XI., fig. 22).

Capite palpis et antennis lacteis. Thorace lacteo-brunneo bimaculato. Alis anticis lacteis, macula in basi costæ, fascia basali, fascia mediali late reduplicato cuneiforme, et fascia anguste prope marginem apicalem, brunneis; ciliis lacteis. Alis posticis lacteo-cinereis. Apud apicem costæ subobsolete bistrigalis.

Head, palpi, and antennæ creamy white. Thorax creamy white, with two brownish spots or streaks. Fore wings with the costa slightly arched, the apical margin oblique; apex somewhat acuminate, creamy white, with a brown spot at the extreme base of the costa, a narrow brown fascia near the base slightly curved outwards. A wide reduplicated brown wedge-shaped fascia occupying two-thirds of the costal and one-half of the dorsal space beyond the middle of the wing, its central space showing the pale ground colour in more or less amalgamated longitudinal streaks; its inner edge straight, its outer edge obliquely parallel to the apical margin; before this running from the apex to within the anal angle

is another narrow brownish oblique fascia. Cilia creamy white. Hind wings and cilia whitish cinereous, with two subobsolete brownish costal streaks before the apex. Expanse, 15 mm.

Three specimens. "Spring Vale and D'Urban, July, September, and October."

This insect has the palpi of a *Cryptolechia*, but the form of its wings is so different from that of the majority of species, from various parts of the world, which have been placed in this genus by different authors, that I should have hesitated to include it among them had I not been able to compare it with specimens of the preceding species, from which Professor Zeller originally characterised the genus; from these it cannot be considered generically distinct.

Cryptolechia castella, Zell., Handlingar Kong. Svensk. Vetens. Akad. 1852, pp. 107, 108; Walk., Cat. Lep. Het., B. M., xxix. 745.

Cryptolechia eariasella, Walk., Cat. Lep. Het., B. M., xxix. 746.

Cryptolechia hæresiella, Wallgr., Öf. Af. Kongl. Vet. Akad. För., 1875, Arg. 32, pp. 128, 129.

Cryptolechia dilutella, n. s. (Pl. XI., fig. 23).

Capite (capillis aliquot hirsutis), palpis antennis et thorace dilute albido-ochraceis. Alis anticis dilute albido-ochraceis, punctis duobus in cellula tertio postice in plica, et serie arcuata punctorum ante marginem apicalem subobsoletis fuscescentibus, serie in margine apicali paulo distinctiore. Squamis elongatis prope basi marginis dorsalis in penicillo appresso collectis. Posticis dilute cinereis, ciliis dilutioribus.

Head rather rough, together with the thorax, palpi, and antennæ pale whitish ochreous. Fore wings pale whitish ochreous, the costa very faintly and narrowly shaded with ochreous; a small patch of elongated scales on the dorsal margin near the base, forming an appressed tuft, a small fuscous discal spot a little above the middle of the wing at one-fourth from the base, followed by another nearly obsolete spot towards the end

of the cell, situated in the middle of a narrow oblique subfuscous shade; beneath these two, and equidistant from each, is another indistinct spot on the fold. Halfway between the end of the cell and the apex is a semicircular series of almost obsolete fuscous dots running nearly parallel to the margin of the wing, and on the apical margin itself is a series of rather more distinct but scarcely larger dots of the same colour; a very minute fuscous shade on the extreme apex of the costa. Cilia concolorous with the wing. Hind wings pale cinereous, with very pale cilia. Expanse, 17 mm.

One specimen in Mr. Gooch's collection.

Cryptolechia atropunctella, n. s. (Pl. XI., fig. 24).

Capite thorace et palpis albis immaculatis, antennis paulo infuscatis. Alis anticis albis apice rotundato, costa peranguste substraminea punctis tribus discalibus atris quorum secundum primo oblique subjacet, tertio ad finem cellulæ, serie punctorum minorum in margine apicali. Posticis dilutissime griseo-albidis subnitentibus.

Head and thorax white; the palpi white, having the third joint almost as long as the second, which is but slightly thickened. Antennæ white at the base, somewhat tinged with fuscous beyond. Fore wings with the apex much rounded, white, the costa very narrowly tinged with straw-colour, especially towards the apex. Two black discal spots before the middle, the upper one being the nearest to the base, a third black spot lying at the end of the cell; a row of from three to five smaller black dots along the apical margin. Cilia white. Hind wings rather shining whitish, with a very faint rosy greyish tinge. Under side of the fore wings tinged with fuscous; the costal margins of all the wings pale straw-colour. Expanse, 15 mm.

Three specimens from Spring Vale, taken at light in November.

Cryptolechia roseoflavida, n. s. (Pl. XII., fig. 25).

Capillis erectis obscure roseo-brunneis. Thorace obscure roseo-brunneo. Palpis recurvis tenuibus verticem non superantibus subroseis. Antennis brunneo-fuscis. Alis

anticis nitentibus dilute aurantio-flavidis. Ciliis roseo-puniceis, basi extremo et margine costali late roseo-puniceis, maculis duabus discalibus roseo-puniceis. Alis posticis dilute fumidis apud apicem roseo paulo suffusis.

Head rather rough with some erect scales, dull rosy brown. Thorax dull rosy brown. Palpi recurved, rather slender, not overarching the vertex, rosy pinkish. Antennæ brownish. Fore wings with the apex somewhat rounded, the anal angle not well defined, bright shining pale orange-yellow. A rosy pink shade occupies the extreme base, and overspreads the costal third of the wing to the apex, gradually blending with the pale ground colour; below this shade are two rosy-pink spots on the disc, one before and one beyond the middle; a few rosy-pink scales about the dorsal and apical margins; the cilia bright rosy pink. Hind wings pale smoky grey, with a slight rosy tinge towards the apex. Expanse, 24 mm.

Two specimens received from the late Colonel Harvey Tower from Natal.

Cryptolechia roseocostella, n. s. (Pl. XII., fig. 26).

Capite et thorace albis. Antennæ dilute brunneis. Palpis albis, articulo apicali roseo suffuso. Alis anticis rotundatis albis, costa anguste rosea, macula ante medium triangulare cujus apex attenuatus externe ad finem cellulæ productus dilute brunneus, margine apicali et basi marginis dorsalis dilute brunneis. Ciliis albis. Alis posticis cum ciliis albis.

Head and thorax white. Antennæ pale brownish. Palpi white, the apical joint suffused with rose-colour. Fore wings with the apex rounded, the anal angle also rounded, white, the costa narrowly bright rose-colour, having, slightly beyond its middle, a triangular pale brown patch, of which the apex is produced in an attenuated and angulated streak to the end of the cell, reaching about half-way across the wing. The apical margin is also pale brown, the space occupied by this colour clearly defined and attenuated towards the anal angle. A pale brown shade lies along the base of the dorsal margin. Cilia white. Hind wings and cilia white. Expanse, 16 mm.

Taken at D'Urban among bush in November.

ANTÆOTRICHA, *Zeller*.

Antæotricha ? ovata, n. s.

Capite antennis et palpis testaceo-griseis; thorace forti. Palpis articulo tertio longitudine secundo æquali, quam in *Cryptolechia* aliquot fortiori. Alis anticis ovatis costa arcuata apice rotundato testaceo-griseis subnitentibus; puncto singulo apud finem cellulæ fusco, venis ultra eam subconspicuis; posticis quam anticis latioribus vix dilutioribus griseo-cinereis.

Head, antennæ, and palpi pale testaceous-grey, the palpi with the second and third joints of about equal length, the third slightly stouter than in *Cryptolechia*. Thorax stout. Fore wings ovate, with the costa arched, the apex rounded, pale testaceous-grey, rather shining; a single fuscous spot at the end of the cell, beyond which the veins are traceable to the apical margin. Hind wings rather broader than the fore wings, slightly paler greyish cinereous. Expanse, 25 mm.

One specimen in poor condition in Mr. Gooch's collection.

ŒCOPHORA, *Zeller*.

Œcophora ? obliquestrigella, n. s. (Pl. XII., fig. 27).

Capite levi, palpis tenuibus, thorace pleno. Antennis (articulo basali supra squamis erectis incrassato) et alis anticis dilutissime ochraceo-cervinis; striga costali oblique inversa ultra medium postice projecta et margine apicali anguste purpureo-fuscis puncto minimo discali concolore in terno basali squamulis dilutioribus utrinque diffusis. Posticis parvis ovatis.

Head, thorax, palpi, antennæ, and fore wings pale ochraceous-fawn colour, the head smooth, with closely appressed scales above and in front; the palpi slender, acuminate. Antennæ with the basal joint appearing thickened by a dense tuft of appressed scales above it. Thorax wide. Fore wings with the costa somewhat raised beyond the middle, with a single dark purplish fuscous streak from the highest part of the costa pointing inwards, and extending straight down to or beyond the middle of the wing. Half-way between this and the base is a small purplish fuscous dot above the middle,

and at the same distance on its other side in the direction of the anal angle are a few scattered scales of the same colour; some small paler scales are widely scattered over the general surface of the wing. A straight purplish fuscous streak occupies the middle of the apical margin, extending downwards into the cilia above the anal angle, and upwards towards the costa near the apex, giving a square appearance which does not correspond to the actual shape of the wing margin. Hind wings narrow, ovate, rather shining, very pale cinereous, small in proportion to the upper wings. Expanse, 15 mm.

This species appears to agree more closely with *Œcophora* than with any other genus, but the hind wings are unusually small, and I am unwilling to denude the only specimen in the collection to ascertain its neuration.

One specimen in Mr. Gooch's collection.

Teratopsis, n. g.

Capilli hirsuti; ore levi. Ocelli nulli. Haustellum mediocre, squamatum. Palpi maxillares brevissimi supra haustellum conniventes. Palpi labiales erecti verticem superantes, articulo secundo quam tertio bis longiore, tertio squamis rudibus ante apicem aliquot incrassato, apice acuminato. Antennæ supra subserratæ. Alæ anticæ costa ante medium perarcuata margine postico subobliquo, vena apicali furcata. Alæ posticæ sat latæ cellula clausa. Tibiæ posticæ hirsute pilosæ.

Head rough above, face smooth. Ocelli none. Tongue of moderate length, scaled. Maxillary palpi short, meeting over the tongue. Labial palpi erect, slightly overreaching the vertex, the third joint about half the length of the second, roughly scaled in the middle, with the apex acuminate. Antennæ slightly serrated above. Fore wings quadrangular, the costa sharply arched before the middle, the apical margin rather oblique; anal angle with long cilia. The apical vein forked, all the others single. Hind wings rather broad, rounded at the tip, not emarginate below the apex. Hind tibiæ thickly clothed with coarse hair-like scales. Spurs short.

This genus seems to be allied to *Cryptolechia*. The apical joint of the palpi, which is somewhat coarsely

scaled instead of being slender and naked, as in that genus, and the suddenly arched, almost angulated costa, are the chief characters which appear to separate it. It has much the appearance of the genus *Teras*, Lin., among the *Tortricidæ*.

Teratopsis tunicella, n. s. (Pl. XII., fig. 28).

Capite thorace palpis et antennis schistaceo-griseis. Palpis articulo tertio squamis rudibus ante apicem acuminatum paulo incrassato. Alis anticis schistaceo-griseis plaga basali externe arcuata et squamis erectis perspicue marginata purpurascente, lunula auriforme ad finem cellulæ atomis atris circumjacentibus, margine apicali punctulis atris indicato. Posticis dilute schistaceo-griseis subnitentibus.

Head, thorax, and antennæ slaty grey; the palpi slaty grey, mottled with a few dusky scales on the outer sides, having the second joint of even width thickly scaled; the third joint half as long as the second, somewhat thickened in the middle, with rough scales nearly reaching to the apex, which is acuminate. Fore wings slaty grey, with a conspicuous and distinct basal patch of bronzy purple covering the basal third of the wing, except on the dorsal margin, rounded at its outer edge, which is distinguished by a line of strongly-raised blackish purple scales, reaching nearly, but not quite, to the dorsal margin. An ear-shaped spot lies at the end of the disc, its narrow blackish margin interrupted on the side immediately opposite to the anal angle, and separated by a slight interspace from its reddish purple centre. Around it are a series of minute blackish dots, which seem to be continued downwards on its inner side to the dorsal margin and anal angle, becoming more conspicuous along the apical margin, and reaching around the apex to the costa. Hind wings rather shining pale slaty greyish, lighter on the costa towards the base, with a slender pale line along the base of the cilia. Expanse, 18 mm.

A single specimen in good condition is in Mr. Gooch's collection.

Heliozela nigrocella, Stt. 1853 (Tineidæ) =

Psoricoptera, *Stainton.*

Psoricoptera? hirsutella, n. s. (Pl. XII., fig. 29).

Capite aliquot hirsuto-griseo; haustello mediocre, squamato. Palpis labialibus griseis fusco striatis et irroratis articulo secundo late fasciculato, articulo apicali erecto tenui paulum squamato. Antennis fuscis. Alis anticis scabris dilute griseo-ochraceis undique fusco suffusis et irroratis; flocco basali submediali erecto fusco et flocco post medium supra marginem dorsalem subochraceo. Posticis et abdomine cinereis.

Head slightly rough, grey. Tongue moderate coarsely scaled. Labial palpi mottled and irrorated with greyish fuscous, with the second joint thickly and widely tufted beneath; the apical joint erect, slender, slightly scaled. Antennæ fuscous, with the basal joint scarcely thickened. Fore wings pale greyish ochreous, almost entirely suffused or sprinkled with dark fuscous, with numerous scattered tufts of raised fuscous scales, of which the most prominent and conspicuous is at the base of the wing slightly below the middle. Immediately above the dorsal margin, and beyond the middle of the wing, is another conspicuous tuft of scales of the pale ground colour. Hind wings cinereous, with a slender pale ochraceous line at the base of the cilia. Abdomen cinereous. The posterior pair of tibiæ hairy. Expanse, 20 mm.

One specimen in Mr. Gooch's collection.

In neuration it differs only slightly from *Psoricoptera gibbosella*, Zell., in which species the fork of the apical vein is nearer to the cell, and the position of the veins about the anal angle is somewhat different.

Gelechia, *Zeller.*

Gelechia rescissella, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, 110; Walk., Cat. Lep. Het., B. M., xxix. 628.

G. zetterstedtiella, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, 110; Walk., Cat. Lep. Het., B. M., xxix. 628.

Gelechia zulu, n. s. (Pl. XII., fig. 30).

Capite dilute ferrugineo. Palpis tenuibus albidis externe aliquot infuscatis. Thorace brunneo-fusco,

patagiis canis. Alis anticis brunneo-fuscis, fascia obliqua aliquando apud medium interne projecta et macula costali ante apicem canis. Margine dorsali linea antice albida postice ferruginea indicato. Posticis sub apice vix excisis dilute fuscis.

Head pale ferruginous. Palpi slender, whitish, the third joint nearly as long as the second, slightly shaded on their outer sides. Antennæ fuscous. Thorax brownish fuscous; the wing-coverts white. Fore wings brownish fuscous, with a white fascia scarcely beyond the middle pointing obliquely outwards from the costa, and sometimes with an excrescence on its inner edge about the middle of the wing. A white triangular costal spot before the apex. The apical margin is marked by a slender whitish line, followed by some blackish scales at the base of the cilia. A pale streak runs along the dorsal margin, its upper half whitish, its lower half ferruginous. Hind wings pale fuscous, scarcely emarginate below the apex. Expanse, 12 mm.

Two specimens taken at light at D'Urban and Spring Vale in July and December (Gooch).

Gelechia flavipalpella, n. s. (Pl. XII., fig. 31).

Capite palpis tenuibus et antennis flavidis. Alis anticis acuminatis cum ciliis subpurascenti-fuscis puncto obscuro postmedium subobsoleto, posticis cum ciliis cinereis.

Head yellow, slightly tinged with fuscous above; the face bright yellow. Palpi slender, recurved, yellow. Antennæ simple, yellowish, slightly touched with fuscous on their upper sides beyond the base. Fore wings elongate, acuminate, together with the cilia fuscous with a purplish tinge; an almost obsolete darker fuscous spot beyond the end of the cell. Hind wings and cilia cinereous. Expanse, 17 mm.

Taken at light in October at Spring Vale (Gooch).

Gelechia abjunctella, Walk., Cat. Lep. Het., B. M., xxix. 629.

Two specimens are in Mr. Gooch's collection.

Taken at D'Urban in the garden in August and September.

Brachmia, *Heinemann.*

Brachmia trigella.

Gelechia (*Brachmia*) *trigella*, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, pp. 112, 113; Walk., Cat. Lep. Het., B. M., xxix., p. 628.

Brachmia subsecivella.

Gelechia (*Brachmia*) *subsecivella*, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, pp. 113, 114; Walk., Cat. Lep. Het., B. M., xxix., p. 629.

Drosica, *Walk.*

Drosica abjectella (Pl. XII., fig. 32).

Drosica abjectella, Walk., Cat. Lep. Het., B. M., xxviii., pp. 519, 520.

One specimen of this species is in Mr. Gooch's collection. The palpi are very peculiar, somewhat diverging, clothed beneath with a fringe of elongate scales, which, turning slightly inwards, give them a pectinated or feathered appearance. The hind tibiæ have the first pair of spurs very long, and about equal to each other.

Mr. Gooch writes of this species, "D'Urban, bush on Berea, August."

Eucleodora, n. g.

Caput squamis appressis lævigatum. Antennæ pubescentes alis anticis vix longiores. Haustellum sat longum dense squamatum. Palpi labiales articulo secundo aliquot incrassato, articulo apicali in dimidio basali paulo supra fasciculato. Alæ anticæ elongatæ ovatæ sub apice profunde incisæ vena apicali furcata. Posticæ lanceolatæ. Tibiæ anticæ externe fasciculatæ.

Head obtuse, with appressed scales, not rough. Antennæ scarcely longer than the fore wings, pubescent. Tongue rather long, coarsely scaled. Labial palpi long, recurved; the second joint somewhat thickened about the middle, scaled on its upper side; third joint slender, slightly shorter than the second joint, its basal half tufted on the upper side. Fore wings elongate-ovate, deeply indented below the apex; the apical vein forked,

both forks reaching the costal margin before the extreme apex. Hind wings lanceolate; the abdominal angle strongly defined.

Eucleodora chalybeella, n. s. (Pl. XII., fig. 33).

Capillis lævigatis et antennis pubescentibus cinereis. Palpis dilute cinereis articulo apicali supra ferrugineo fasciculato. Alis anticis margine apicali profunde inciso ferrugineis terno dorsali dilutiore; litura a basi ultra medium attenuate projecta, postice ferruginea subangulata, antice purpurascenti-chalybea; striga costali ultra medium peroblique reduplicata nitente chalybea; infra eam litura chalybea. Apice chalybeo substriato. Posticis cum ciliis cinereis.

Head smooth, cinereous. Antennæ pubescent, cinereous. Palpi pale cinereous, the second joint slightly thickened, the apical joint with a pale ferruginous tuft of elongate somewhat appressed scales on its basal half. Tongue coarsely scaled. Fore wings elongate-ovate, with the apex rounded, the apical margin deeply excised, ferruginous; the dorsal third of the wing paler; an elongate outwardly attenuated costal blotch coming from the base, angulated and clearly defined below the middle of the wing, is dark ferruginous on its lower, and shining purplish steel-colour on its upper, half; a slender outwardly very oblique reduplicated shining steel-coloured costal streak, joining before the apex a short single costal streak of the same colour. The apical portion of the wing with some slender steel-grey streaks. Hind wings and cilia cinereous. The anterior tibiæ slightly tufted, with elongate hair-like scales on their outer sides. Expanse, 13 mm.

One specimen, taken at Spring Vale at light.

Chelaria, *Haw.*

Chelaria albo-grisea, n. s. (Pl. XII., fig. 34).

Capite albido-griseo. Palpis griseo striatis et maculatis; articulo secundo late fasciculato. Alis anticis albido-griseis; fusco-brunneo atomosis, litura apud medium elongata quadrangulari; litura costali subapicali cum macula interjacente et margine apicali fuscis, squamis paucis singule dispersis cyaneo-chalybeis. Alis posticis cinereo-fuscis sub vena costali anguste chalybeo pellucidis in vena dorsali fasciculatis.

Head and thorax whitish grey; palpi erect, arching over the vertex, whitish grey, streaked and spotted with greyish fuscous; the second joint with a widely projecting semicircular tuft of long closely-packed coarse scales beneath; the apical joint with two small appressed tufts above. Antennæ with the basal joint slightly enlarged, dirty whitish, annulated with greyish fuscous. Fore wings whitish grey, with a slight pinkish tinge, irrorated with brownish fuscous scales, and with a few single widely scattered steel-blue metallic scales chiefly about the darker markings. A somewhat quadrangular fuscous spot lies scarcely above the middle of the wing; the costa above it slightly shaded; a costal blotch of about the same size before the apex, and a smaller spot between the two are of the same colour; the apical margin is also narrowly fuscous; cilia whitish grey. Hind wings cinereous-fuscous, with a narrow semi-transparent steel-blue streak beneath the costal vein, and a tuft of long cinereous-fuscous scales arising from the base of the dorsal vein, but apparently not erect. Expanse, 21 mm.

One specimen. Spring Vale, among trees; December.

Ypsolophus, *Fabricius.*

Ypsolophus furvellus, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 115.

Ypsolophus latipalpis, n. s. (Pl. XII., fig. 35).

Capite palpis et antennis griseo et fusco atomosis. Palpis porrectis articulo secundo supra anguste infra late fasciculato; articulo apicali brevi filiforme; externe fusco suffusis. Alis anticis angustis elongatis (margine apicali obliquo) brunneo-fuscis; apud basim et in margine costali ante apicem griseo atomosis; linea angusta in basi ciliorum marginis apicalis ochrea. Posticis subnitidis dilute griseis vix purpurascentibus; linea in basi ciliorum dilute ochrea.

Head, palpi and antennæ speckled with grey and fuscous, the palpi very considerably prominent; the second joint with a narrow gradually attenuated tuft on its upper side, a wider and far projecting tuft on its under side, both laterally compressed; the apical joint obliquely erect, short and filiform; both much tinged on

their outer sides with brownish fuscous. Fore wings narrow, elongate (with the apical margin oblique, the extreme apex rounded), brownish fuscous, with a very faint plum-coloured gloss; speckled about the base of the fold and costal margin with whitish grey scales, as also about the costal margin on the apical fourth of the wing. Cilia dark brownish fuscous, slightly speckled with greyish, and with a narrow pale ochreous line along their base, continued around the anal angle. Hind wings and cilia shining pale grey, with a very faint purplish tinge; a narrow faint ochreous line running along the base of the cilia. Expanse, 14 mm.

One specimen in Mr. Gooch's collection.

Ypsolophus straminis, n. s. (Pl. XII., fig. 36).

Capite et thorace dilute stramineis. Antennis supra dilute punctatis. Palpis dilute stramineis externe purpurascentibus; articulo secundo incrassato plene vestito, apicali oblique projecto nec erecto, tenui. Alis anticis dilute stramineis; macula discali in medio et striga paulo ante marginem apicalem ferrugineis, squamis metallicis cyaneo-purpureis adspersis. Posticis dilute subcinereo-stramineis.

Head and thorax pale straw-colour. Antennæ pale straw-colour, faintly dotted above with fuscous. Palpi pale straw-colour on their inner sides, streaked with purplish externally; the second joint much thickened, densely clothed, laterally compressed; the apical joint projecting rather obliquely, not erect, slender. Fore wings pale straw-colour, having a pale ferruginous shade lying obliquely parallel to and near the apical margin, extending to the apex, but not quite to the anal angle, containing throughout its length bright bluish purple metallic scales; a ferruginous elongate discal spot about the middle of the wing, also containing some bright bluish purple metallic scales; between this discal spot and the anal angle is a faint streak of ferruginous-brown scales, another slight streak of the same colour beyond the middle of the cell, reaching to the dark marginal shade. Hind wings pale rather cinereous straw-colour. Legs pale straw-colour, some of the joints touched with purplish. Expanse, 18 mm.

One specimen given to me by Mr. H. Druce from Bedford, South Africa.

Ypsolophus siccifolii, n. s. (Pl. XIII., fig. 37).

Capite levi antennis simplicibus et thorace pleno osseis. Palpis osseis, articulo secundo late fasciculato externe fusco liturato; articulo apicali tenui fusco bicincto. Alis anticis latitudine ter longioribus; costa ultra basim recta; margine apicali obliquo, osseo-cinereis, ochraceo-cervino partim suffusis et irroratis; squamis atro purpureis in medio et in fine cellulæ glomeratis; strigulis costalibus prope apicem sub-argenteis et linea metallice argentea in margine apicali. Posticis dilute osseis subnitentibus.

Head smooth, antennæ simple, thorax wide, all bone-coloured. Labial palpi bone-coloured, projecting, recurved; the second joint having a wide laterally compressed tuft projecting fully its own length beyond it, blotched with fuscous on its outer side; the apical joint slender, acuminate, with two subconspicuous fuscous rings. Fore wings cinereous bone-colour, more or less irrorated and suffused with ochreous fawn-colour, especially on the upper and outer half of the wing; a few scattered dark purplish scales near the base of the costal margin, and two rounded groups of dark purplish scales on the disc, one before and one beyond the middle; some shining whitish oblique streaks on the outer half of the costa, and a bright shining silvery metallic line along the apical margin. Cilia shaded with brownish ochreous, darker at their tips. Hind wings slightly emarginate below the apex, together with their cilia pale bone-colour. Posterior tibiæ smooth, somewhat thickened, but not tufted. Expanse, 25 mm.

One specimen only. Spring Vale, at light; December (Gooch).

Nothris, *Hübner*.

Gelechia (*Nothris*) *externella*, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 109; Walk., Cat. Lep. Het., B. M., xxix., p. 628.

Gelechia (*Nothris*) *septella*, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 108; Walk., Cat. Lep. Het., B. M., xxix., p. 628.

Two specimens in Mr. Gooch's collection. Taken at D'Urban and Spring Vale; December.

Nothris meridionella, n. s. (Pl. XIII., fig. 38).

Capite palpis et antennis dilute ochreis. Alis anticis ochreis; puncto in finem cellulæ majore, punctis tribus ante medium minoribus, duobus discalibus uno in plica, fuscis; margine apicali subfusco adumbrato punctis tribus minimis supra angulum analem; ciliis ochreis. Alis posticis cinereis; ciliis subochraceis.

Head, palpi and antennæ pale ochreous, the palpi with the second joint thickened, very slightly tufted at its apex; apical joint slender, nearly as long as the second. Thorax and fore wings ochreous, with four small fuscous dots, the largest at the end of the cell, the other three much smaller; the first on the disc at about one-fifth from the base, the second also on the disc just before the middle, the third on the fold lying obliquely below and before the second; the apical margin slightly shaded with fuscous, with two or three small marginal fuscous dots above the anal angle. Cilia ochreous. Hind wings cinereous, with pale ochreous cilia. Expanse, 15 mm.

Two specimens in Mr. Gooch's collection.

This species is nearly allied to the European *Nothris Durdhamella;* Stn., but differs in the number and position of the spots.

Topeutis, *Hübner*.

Topeutis drucella, n. s. (Pl. XIII., fig. 39).

Capite cum flocco frontali cervine albido. Palpis capite plus quam bis longioribus porrectis. Alis anticis (costa arcuata) albidis, inter venas dilute cervino multistriatis; costæ dimidio basali conspicue albido; punctis duobus parvis discalibus brunneo-fuscis. Posticis dilute cinereo-cervinis.

Head fawn-white, thickly clothed with coarse scales projecting forwards over the face. Labial palpi whitish above, dusky beneath, projecting more than twice the length of the head beyond it, less roughly clothed than in the European species of this genus, the apical joint especially being much less coarsely scaled. The structure of the whitish antennæ is similar to those of *Topeutis barbella*, Fab., but they are somewhat less hairy in the male. Thorax whitish fawn-colour. Fore

wings (with the costa considerably arched, the apical margin oblique) whitish, longitudinally streaked with pale fawn-colour, which fills all the interspaces between the veins, leaving these conspicuously distinguished by the whitish ground colour. Along the basal half of the costal margin is a conspicuous whitish streak, narrow at the base, broader towards its middle, and gradually attenuated towards the middle of the costa, dying out a little beyond it. At the extreme base of the costa are a few brownish scales. There are two small brownish fuscous discal spots, the lesser before, the greater beyond, the middle; a series of three or four subobsolete spots of the same colour are distinguishable along the apical margin in good specimens. Cilia whitish, mixed with pale fawn-colour. Hind wings very pale cinereous fawn-colour. Legs roughly hairy, as in *Topeutis barbella*, Fab., with which it appears to agree also in neuration. Expanse, 19 mm.

One male from Bedford, South Africa.

I am indebted to Mr. H. Druce for this interesting addition to my collection; I have ventured to name it in his honour. There are also two specimens of this species in Mr. Gooch's collection, taken at light in October and November at Spring Vale.

Hypercallia, *Stephens.*

♂ *Hypercallia subreticulata* (Pl. XIII., fig. 40).

Capite et thorace flavis miniano-roseo subtinctis. Antennis albidis fusco supra punctatis. Palpis flavis, versus apicem utriusque articuli roseo tinctis. Alis anticis flavis, strigis et lituris miniano-roseis subreticulatis, quorum majores squamis cyaneo-chalybeis adspersæ sunt. Posticis cum ciliis brunneo-fuscis.

Head and thorax bright yellow, touched with rosy vermilion. Antennæ whitish, dotted above with fuscous. Palpi erect, slightly recurved, with the second joint scaled, slightly thickened, but not tufted; the apical joint slightly scaled, acuminate; yellow, touched with rosy vermilion towards the apex of each joint. Fore wings bright yellow, subreticulated with rosy vermilion streaks and shades, of which the most important are sprinkled with steel-blue metallic scales; notably a narrow oblique fascia from beyond the middle of the

costa to the anal angle, a diverging streak leaving this fascia below the costa and running to the basal third of the dorsal margin, two rather triangular costal spots, the one before, the other beyond, the middle, the extreme base of the costa, and a streak along the apical margin; between these markings are some few bright rosy vermilion shades. Hind wings and cilia brownish fuscous. Expanse, 14 mm.

One specimen given to me by Mr. Druce from Bedford, South Africa. It differs from *Hypercallia igniferella*, Walk., an Australian species, in its darker hind wings, and in the convergence of the vermilion streaks in the direction of the costal, instead of the dorsal, margin.

ŒCOPHORA, *Zeller*.

Œcophora? sabiella.

Psecadia? sabiella, F. & R., Reise d. Nov., pl. cxxxix., fig. 30.

Notwithstanding the strong superficial resemblance of this insect to many species of *Psecadia*, the form of its palpi at once distinguishes it from that genus. The greater length of the proboscis is the only character about the head which might perhaps be held to distinguish it from the genus *Œcophora*, in which I place it, at least provisionally. It is very nearly allied to, and evidently congeneric with, *Œcophora picarella*, Walk., a New Zealand species. The following description is, perhaps, scarcely necessary, since it is easily to be recognised by the excellent figure in pl. cxxxix. of Felder and Rogenhofer's 'Reise der Fregatte Novara.'

There are three specimens in Mr. Gooch's collection, taken at light at Spring Vale in August. I have also received it from Mr. Druce, who obtained it from Bedford, South Africa.

Head white; palpi recurved, overarching the vertex, white; the second joint with a black ring at the base, and another at the apex; third joint with a black ring about the middle, and another at the apex. Antennæ fuscous, with a black spot on the white basal joint. Tongue very long, scaled at the base. Thorax and fore wings white; the thorax with four black spots, one in front, one on the middle, and one on each side; the fore wings with the extreme edge of the costa black to the

middle, some black irregular patches on the upper half of the wing; near the base a black cross with equal arms on the outer edge of the basal third; a conspicuous black V-shaped mark, with irregular dentated edges about the middle, reaching the costa before and beyond the middle, and the dorsal margin scarcely beyond the middle; three black spots on the dorsal margin, one near the base, one betweeen the cross and the V-shaped mark, and one near the anal angle; a small black costal spot equidistant between the arms of the V and some small black marginal spots around the apex and the anal angle, with an irregular thick black streak extending inwards from below the apex. Legs white, with several black annulations. Expanse, 26 mm.

ERETMOCERA, *Zeller*.

It is remarkable that Mr. Walker, in characterising the genus *Exodomorpha* (Cat. Lep. Het., B. M., xxix., p. 833), should not have been reminded of Professor Zeller's genus, *Eretmocera* (Microp. Caffr.; Kong. Svensk. Vetens. Akad., 1852, p. 98), which was established to include several allied species occurring in the same district as those described by Mr. Walker, and in some cases apparently identical with them. I am indebted to Mr. A. G. Butler for having called my attention to the fact that the genus *Staintonia*, Staud. (Stet. Ent. Zeit., 1859, p. 250), is the same as *Exodomorpha*, Walk., in which case it must also yield to the priority of Zeller's *Eretmocera*.

Eretmocera (*Œdematopoda*) *princeps*, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, pp. 96, 97; Walk., Cat. Lep. Het., B. M., xxix., p. 707.

Eretmocera fuscipennis, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 98; Walk., Cat. Lep. Het., B. M., xxix., p. 707.

Var. α.=*Exodomorpha inclusella*, Walk., Cat. Lep. Het., B. M., xxix., p. 834.

Var. β.=*Exodomorpha derogatella*, Walk., Cat. Lep. Het., B. M., xxix., p. 834.

Prof. Zeller describes what he regards as two varieties of this species, and points out the differences between them, as follows:—

"Var. α.—Alis anterioribus brunneis; posterioribus supra fuscescentibus, subtus puniceis, ciliis circa apicem fuscis, ceteris puniceis; abdomine coccineo, macula baseos dorsali segmentoque anali fuscis. Mas et fœm."

"Var. β. ut α. sed colore flavissimo pro puniceo coccineoque, mas.—Alæ posteriores anguste lanceolatæ, valde acutæ, dilute brunneæ, basim versus dilutiores ibique squamis pallide puniceis (in var. β. flavidis) immixtis, subtus puniceæ (var. β. flavæ) apice ipso fusco-cilia utriusque paginæ in var. α. punicea, in var. β. flavæ, in utraque varietate circa apicem latius fusca."

Mr. Walker's two supposed distinct species agree closely with the above descriptions, and a single specimen of var. β. = *E. derogatella*, Walk., is in Mr. Gooch's collection.

Eretmocera scatospila.

Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 99; Walk., Cat. Lep. Het., B. M., xxix., p. 708.

Eretmocera lunifera. (Pl. XIII., fig. 41).

Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 100; Walk., Cat. Lep. Het., B. M., xxix., p. 707.

A single specimen of this beautiful little species occurs in Mr. Gooch's collection, without any record of where or when it was taken.

Eretmocera lætissima.

Zell., Handlingar Kong. Svensk. Vetens. Akad.,, 1852, pp. 100, 101; Walk., Cat. Lep. Het., B. M., xxix., p. 708.
Exodomorpha divisella, Walk., Cat. Lep. Het., B. M., xxix., pp. 833, 834.

These names are undoubtedly synonyms for one very distinct and apparently not uncommon species, which, however, is not represented in Mr. Gooch's collection.

ÆCHMIA, *Treitschke.*

Æchmia bohemani, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 116; Walk., Cat. Lep. Het., B. M., xxx., p. 842.

Glyphipteryx, *Hübner.*

Glyphipteryx? dimidiatella, Walk., Cat. Lep. Het., B. M., xxx. 839.

This insect has not in any degree the appearance of the genus *Glyphipteryx*; but as only one wing of the typical species is in even reasonably fair condition, the antennæ and palpi being altogether absent, I am unable to determine in what known genus, if any, it could be more correctly placed. I may add to Walker's description that beyond the yellow basal half the fore wing is rather shining purplish.

Idioglossa, n. g.

Caput superne ac in fronte squamis appressis lævigatum. Antennæ crassiusculæ simplices, articulo basali non majus incrassato quam alis anticis paulo breviores. Palpi labiales tenues articulo secundo squamis appressis vix incrassato, articulo apicali nudo acuminato. Haustellum supra longe fasciculatum. Alæ anticæ et posticæ angustæ elongatæ acuminatæ, metallice ornatæ. Tibiæ posticæ pilosæ.

Head smooth above and in front. Antennæ stout, simple, with the basal joint not thickened, rather shorter than the fore wings. Tongue long and thickly scaled, with a reduplicated tuft of long hair-like scales depending from its basal half, above.* Fore and hind wings narrow, elongate, acuminate, and ornamented with metallic scales. Hind tibiæ somewhat hairy.

This genus seems to be allied to the genera *Stathmopoda*, Stn., and *Cosmopteryx*, Hüb., which it much resembles in the form of the wings and in its general appearance; but the tufted base of the tongue and brightly ornamented hind wings at once separate it, and enable it to be easily recognised.

Idioglossa bigemma, n. s. (Pl. XIII., fig. 42).

Capite argenteo; palpis argenteis. Antennis argenteis subflavide obscurius annulatis. Alis anticis ochreis argenteo-æneo metallice pernitidis; fascia ante apicem perangusta obliqua, striga ante medium, macula prope

* In the figure this is shown somewhat too much divided; the hind wings also are a little too long.

basi costæ, et squamis in terno basali marginis dorsalis inter cilia projectis cupreo-argenteis. Alis posticis ochreis plaga basali cum fasciis mediali et subapicali albidis cupreo-argenteo metallice marginatis.

Head and face shining silvery; palpi silvery. Antennæ silvery, inconspicuously annulated above with yellowish. Fore wings ochreous, brightly shining with silvery and brassy metallic scales; a narrow fasciaform streak tending obliquely outwards from the apical fourth of the costa, a shorter oblique streak before the middle, reaching about half across the wing, and a costal spot nearer to the base, are composed of shining metallic silvery slightly-raised scales, appearing, under a strong lens, dull purplish brown, golden yellow, or silvery white as the light strikes them at different angles. Cilia very long, dull yellowish white, mixed with ochreous about the anal angle, and with a few strong purplish brown projecting scales on the dorsal margin at about one-third from the base. Hind wings straight, evenly attenuated towards the apex, ochreous; with a basal patch, a median, and a subapical fascia, all whitish, conspicuously margined with silvery iridescent scales, as in the fore wings. Cilia dull yellowish white, with a slight indication of a few projecting scales on the abdominal margin opposite to those on the fore wings. Legs yellowish, the tibiæ pilose, tarsi shining, slightly metallic. Expanse, 10 mm.

One specimen. Taken at D'Urban, in West Park thicket, in July.

Setomorpha, *Zeller*.

Setomorpha rutella, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, pp. 94, 95; Walk., Cat. Lep. Het., B. M., xxx., p. 708.

Cnemidolophus, n. g.

Capite hirsutum. Haustellum mediocre squamatum. Ocelli nulli. Palpi labiales recurvi articulo secundo vix incrassato tertio tenui, acuto. Antennæ simplices, articulo basali elongato clavato. Alæ anticæ elongatæ lanceolatæ, costa aliquot arcuata apice depresso. Posticæ lanceolatæ, apice attenuato depresso. Tibiæ anticæ

et mediæ dense fasciculatæ, posticæ pilosæ calcaribus imparibus.

Head rough. Tongue of moderate length, thickly scaled. Ocelli none. Labial palpi recurved, with the second joint scarcely thickened, the third joint slender and pointed. Antennæ simple, the basal joint elongate-clavate. Fore wings elongate-lanceolate, the costa somewhat rounded, the apex depressed. Hind wings lanceolate, the apex attenuated and depressed. The first and second pair of tibiæ conspicuously and densely tufted, the third pair coarsely hairy. The inner spurs much longer than the outer.

Probably allied to the genus *Laverna*, Curtis.

Cnemidolophus lavernellus, n. s. (Pl. XIII., fig. 43).

Capite albo, brunneo irrorato. Palpis albis, brunneo maculatis. Antennis albo et brunneo annulatis. Alis anticis albis, maculis duabus in basi costæ, fascia mediali latissima irregulari et litura apicali brunneis, squamis fusco-purpureis nitentibus admixtis. Posticis dilute cinereis subnitentibus, tibiis anticis et mediis fasciculatis albis, brunneo bifasciatis; pedibus albis fusco externe maculatis. Tibiis posticis hirsutis cum pedibus externe brunneo submaculatis.

Head white, mottled with brown. Palpi white, with a pale brownish spot at the apex of the second joint, and two or three pale brownish marks on the apical joint. Fore wings white, with two brown costal spots near the base, the second of which is prolonged by a few brownish fuscous scales, indicating an obsolete basal patch or fascia; before the middle commences a very wide irregular fascia occupying about one-half of the whole surface of the wing, its inner edge being more clearly defined than its outer edge, which extends obliquely outwards through the cilia at the anal angle. The fascia has a generally mottled appearance, and is for the most part brown, upon which are distributed patches of shining dark purple scales, especially along the inner edge, near the costa, and on the dorsal half of the wing about the middle; it is also occasionally interrupted by more or less conspicuous spots of the white ground colour, of which the most clearly defined is a small costal spot near the commencement of the fascia. There is a brown

patch at the apex extending through the apical cilia, and much mottled with shining dark purple scales. The cilia on the middle of the apical margin are white. Hind wings pale cinereous, somewhat shining, with scarcely paler cilia. First and second pairs of tibiæ white, with strong thick tufts doubly barred on the upper side with brown; the feet spotted with fuscous. Third pair of tibiæ densely hairy, together with the feet outwardly spotted with brownish. Expanse, 19 mm.

One specimen in Mr. Gooch's collection, with no record of its capture.

LECITHOCERA, *Herrich-Schäffer*.

Lecithocera anthologella, Wallgr., Öf. Af. Kongl. Vet. Akad. För. 1875, Arg. 32, p. 129.

Lecithocera maculata, n. s. (Pl. XI., fig. 18).

Capite levi, fusco. Palpis externe fusco suffusis interne albido-ochraceis. Antennis crassiusculis ochreo-flavidis. Alis anticis fuscis subnitide purpurascentibus macula discali minore macula in finem cellulæ majore et macula subobsoleta costali in terno apicali ochraceis. Posticis et abdomine fuscis quam anticis paulo dilutioribus.

Head smooth, fuscous. Palpi whitish ochreous on their inner sides, touched with fuscous externally. Antennæ very thick yellowish ochreous. Fore wings fuscous, slightly shining, and with a purplish tinge; a small faint ochreous discal spot on the outer edge of the basal third; a larger roundish faint ochreous spot at the end of the cell, and another less conspicuous spot of the same colour (sometimes scarcely visible) on the costal margin above and beyond it, from which an outwardly angulated line of very faint ochreous scales crosses the wing to the dorsal margin. The hind wings and abdomen fuscous, slightly paler than the fore wings. Expanse, 13 mm.

Two specimens taken at Spring Vale, in bush and at light, December and March.

This differs from other species of the genus with which I am acquainted in the presence of pale ochreous spots on the fore wings.

LITHOCOLLETIS, *Zeller.*

Lithocolletis zulella, n. s. (Pl. XIII., fig. 44).

Capite palpis et antennis albis. Alis anticis cervinis puncto apicali nigro. Strigis dorsalibus duabus albis prima a basi secunda a medio, strigulis costalibus brevioribus albis ultra medium concurrentibus. Posticis cinereis.

Head, antennæ, and palpi white; thorax white, with a fawn-brown streak down the middle. Fore wings fawn-brown, with two dorsal and two smaller costal streaks; the first dorsal streak, starting from the base, joins the first costal streak, starting beyond the middle, at an acute angle on the costal half of the wing; the second dorsal streak, starting from the middle of the dorsal margin, joins the second costal streak, starting on the apical fourth of the wing (also at an acute angle) immediately before the apex, on which is a black spot; a few blackish scales are to be found between the costal streaks, also on the outer edge of the first and inner edge of the second dorsal streaks. Hind wings and cilia cinereous. Expanse, 11 mm.

One in Mr. Gooch's collection.

PTEROPHORIDÆ.

AGDISTES, *Hübner.*

Agdistes pustulalis, Walk., Cat. Lep. Het., B. M., xxx., pp. 927, 928.

This species is represented in the Gooch collection by a single specimen.

It is probably very nearly allied to *Agdistes heydenii*, Zeller, having an indication of the fuscous dots and cuneiform shade which distinguish that species. I have seen no specimens in a condition which would warrant a re-description.

AMBLYPTILUS, *Hübner.*

Amblyptilus cosmodactylus, Hüb., Wocke Cat., No. 3131.
? *Pterophorus acanthodactylus*, Zell., Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 117.
Oxyptilus direptalis, Walk., Cat. Lep. Het., B. M., xxx., p. 934.

This is most probably the species recorded by Professor Zeller from South Africa as *Amblyptilus acanthodactylus*.

I find three specimens in Mr. Gooch's collection labelled as occurring at D'Urban (West Park), and Spring Vale, in bush in the afternoon, and at light in the evening in July, August, and November. These agree with the almost cosmopolitan *cosmodactylus*, but not with the true *acanthodactylus*.

There is also one South African specimen in the British Museum, placed with others under the name *Oxyptilus direptalis*, Walk. On comparing Mr. Walker's description with the three distinct species in this series, I find that it agrees only with the first specimen, which is undoubtedly *Amblyptilus cosmodactylus*, which must, therefore, be considered the type of his *O. direptalis*.

Amblyptilus africæ, n. s. (Pl. XIII., fig. 45).

Capite et alis anticis sordide brunneo-ochraceis; alis anticis minus quam ad medium fissis costa supra basim fissuræ et puncto interjacente fuscis. Lacinia anteriore interne fusco adumbrata, apice producto subfalcato; lacinia posteriore interne fusco adumbrata, ciliis brunneo-fuscis; margine dorsali squamis obscure fuscis denticulato. Alis posticis brunneo-fuscis, digito secundo subfalcato, digito tertio postice bidenticulato. Tibiis posticis dilute brunneo-ochraceis, calcaribus fusco acuminatis.

Head and fore wings dingy brownish ochreous, the fore wings cleft to one-third of their length, having a dark fuscous spot above the base of the fissure about half-way between this and the costa; the costa above the base of the fissure shaded with fuscous. Anterior lobe with the apex produced, subfalcate, having a narrow subfalcate shade along its middle, margined at its outer end by a slender pale line; a fuscous shade on the costa above the apex. Second lobe with a fuscous shade along its middle; the anal angle not well defined. Cilia brownish fuscous, with a projecting tooth of dark fuscous scales slightly beyond the middle of the dorsal margin. Hind wings brownish fuscous, the first cleft reaching scarcely beyond the middle; the apex of the second lobe slightly falcate, the third lobe with two teeth of dark fuscous scales in the fringe, one small near the base, one widely triangular about the middle. Anterior tibiæ darkly tufted; hind tibiæ pale brownish ochreous, with very long spurs, not tufted, each spur tipped with fuscous, the inner one much longer than the outer.

Abdomen brownish fuscous at the sides, with a pale dingy ochreous longitudinal streak above, along the centre of which runs a slender brownish fuscous line. Expanse, 27 mm.

Two specimens taken at Spring Vale at light in May. I have also received this species from Zululand through the late Colonel Harvey Tower.

♂ Oxyptilus, *Zeller*.

Oxyptilus caffer, Zell., Lin. Ent. vi., p. 348; Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 118; Walk., Cat. Lep. Het., B. M., xxx., p. 934.

♂ *Oxyptilus walkeri*, n. s.

Capite et thorace cervinis, palpis tenuibus porrectis. Alis anticis vix ad medium fissis cervinis, lacinia posteriore subfalcata, macula ante medium fusca squamis subalbidis secuta, macula fuscescenti ad basim fissuræ, maculis tribus costalibus una apicali subconspicuis, fasciis duabus dilutis subobsoletis transversis, ciliis intra fissuram et in margine dorsali squamis singulis fuscescentibus dentatis. Alis posticis quam anticis aliquot obscurioribus, digito tertio squamis fusco-brunneis paulo ante apicem denticulato, tibiis brunneo et albido alternantibus.

Head and thorax fawn-brown, the latter posteriorly paler. Antennæ greyish brown; palpi slender, porrected, not tufted. Fore wings cleft nearly to the middle, fawn-brown; a fuscous spot before the middle is followed by some whitish scales; there is a fuscous spot at the base of the fissure, above and beyond it three costal and one apical spot, blackish; the second costal spot is preceded and the third costal spot is followed each by a band of paler whitish scales, which bands are continued across both lobes, but not conspicuously; between these paler bands the cilia within the fissure are studded with fuscous scales, as also on the dorsal margin of the second lobe, the apex of which is elongated and subfalcate, with a defined anal angle. The hind wings are somewhat darker than the fore wings, the posterior cleft extending very nearly to the base; the third lobe ornamented on its hinder margin with alternate whitish

and fuscous scales at the base of the fringes, and with a conspicuous tooth of dark brownish fuscous scales near the apex, above which the fringes on the anterior edge of the lobe are also thickened with dark scales up to the apex. The abdomen is missing in all Mr. Gooch's specimens; the legs are whitish ochreous, banded with dark brown above each joint; the spurs whitish ochreous, the first pair longer than the second; above each pair is a conspicuous fringe of raised dark brown scales. Expanse, 16 mm.

This species stands second in the British Museum series of *Oxyptilus direptalis*, Walk.; but an examination of the description shows (as stated above) that it applies with more correctness to the example of *Amblyptilus cosmodactylus*, which stands first in the same series, and which is evidently the type; the name *O. direptalis*, Walk., must, therefore, be abandoned, inasmuch as it could not have been intended to apply to the species now under description. It would have been difficult to render this species recognisable by means of a figure; it is nearly allied to *O. pilosellæ*, Zell., the tooth of scales on the third lobe of the hind wings being somewhat nearer to the apex than in *O. lætus* and *O. distans*, which species it more closely resembles in appearance.

Three specimens in Mr. Gooch's collection taken at Spring Vale and D'Urban among grass in the afternoon, and at light in the evening in November and December.

Oxyptilus wahlbergi, Zell., Lin. Ent. vi., p. 346; Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 117.

O. wahlbergi, Walk., Cat. Lep. Het., B. M., xxx., p. 934.

Pterophorus rutilalis, Walk., Cat. Lep. Het., B. M., xxx., p. 943.

Three specimens of this species are in Mr. Gooch's collection without any record of the time or place of capture.

Of the palpi Zeller writes:—"Taster von doppelter Kopflänge, weisslich. Endglied über den spitzen Haarbusch des zweiten Gliedes hinausreichend, weiss, auf der Unterseite schwarz."

The palpi are very peculiar; there is a small pointed tuft of hair on the first as well as on the second joint,

which makes them appear to consist of three spines of gradually increasing length and divergence.

This species can scarcely be considered a true *Oxyptilus*. The peculiarity of the palpi alone separates it from that section of the genus *Aciptilus*, which has been held to include *A. paludum*, Zell., and *A. siceliota*, Zell., to which it appears to be allied.

ŒDEMATOPHORUS, *Wallengren*.

Œdematophorus longalis, Walk., Cat. Lep. Het., B. M., p. 943.

The typical specimen is in bad condition, but seems to belong to the genus *Œdematophorus* by reason of its structure.

MIMÆSEOPTILUS, *Wallengren*.

Mimæseoptilus sabius, F. & R., Reise d. Nov., pl. cxl., fig. 60.

Caffraria.

There is a single specimen in bad condition of another species of *Mimæseoptilus* in Mr. Gooch's collection, taken among grass in the market square at D'Urban in July. The wings appear to be almost unicolorous pale greyish brown; the head, thorax, antennæ, and the tufts of the palpi more decidedly grey. There is a fuscous discal spot before the middle, and a faint anti-fissural dot of the same colour. It is a much smaller species than *Mimæseoptilus sabius*, F. & R. Expanse, 18 mm.

LIOPTILUS, *Wallengren*.

Lioptilus bonæspei, n. s. (Pl. XIII., fig. 46).

Alis anticis dilute stramineis, cervino præcipue ultra medium adumbratis, dimidio costali laciniæ posterioris dilute stramineo. Ciliis omnibus cervinis. Posticis nitide cervinis, ciliis ante medium digiti posterioris fumido substriatis.

Palpi slender, projecting nearly the length of the head beyond it. Antennæ tinged with fawn-colour. Fore wings cleft to one-third of their length, straw-coloured, shaded with fawn-brown over more than the costal half of the wing, except towards the base, where only the costa is shaded. The pale straw-colour extends from the

basal portion of the wing in a narrow streak along the upper edge of the second lobe, leaving the cilia along the margin of the cleft, as well as the dorsal half of the lobe and the cilia upon it, fawn-brown. Hind wings shining fawn-colour, with no projecting scales, but apparently a slightly darker streak in the cilia of the third lobe just before the middle. Legs pale stramineous, with a dark slender line along their upper sides and on the pale spurs, which are almost equal in length. Expanse, 19—20 mm.

One in Mr. Gooch's collection.

ACIPTILUS, *Hübner*.

Aciptilus albidus.

Pterophorus albidus, Zell., Lin. Ent. vi., p. 397 ; Handlingar Kong. Svensk. Vetens. Akad., 1852, p. 118.

Aciptilus albidus, Walk., Cat. Lep. Het., B. M., xxx., p. 948.

A. albida, Wallgr., Öf. Af. Kongl. Vet. Akad. För., 1875, Arg. 32, p. 130.

Three specimens of this species taken by Mr. Gooch at D'Urban among rushes in the evening in July.

Aciptilus candidalis, Walk., Cat. Lep. Het., B. M., xxx., p. 948.

The type of this species is stated by Mr. Walker to have been received from Sierra Leone. I find one specimen in Mr. Gooch's collection which seems to agree with it in all particulars. It was taken at Spring Vale in March.

Aciptilus adumbratus, n. s. (Pl. XIII., fig. 47).

Capite dilutissime brunneo macula parva brunnea inter antennas subflavescente albidas. Alis anticis flavescente albidis, macula parva ante medium macula in basi fissuræ squamis concoloribus anguste connexis brunneis. Costa (præcipue in lacinia prima ante apicem) brunneo adumbrata. Ciliis intra fissuram et sub lacinia posteriore præcipue versus apicem brunneis, basibus obscurioribus. Posticis brunneis.

Head very pale brownish, with a small brown spot between the antennæ, which are yellowish white. Fore wings yellowish white, cleft to one-third of their length, the costa shaded with brown nearly to the apex, two-thirds of the apical lobe being suffused with brown scales; a small darker brown costal spot slightly beyond the base of the cleft, a conspicuous brown spot at the base of the cleft connected by a line of brown scales, with a rather narrower spot of the same colour before the middle of the wing; the cilia within the cleft and below the second lobe deeply shaded with brown, which is darkest at their base towards the apex; a few brownish scales also along the basal third of the dorsal margin. Hind wings and cilia brown. Abdomen missing. Legs yellowish white, the posterior tibiæ with slender brown lines along their outer and upper sides, as well as on the spurs. Expanse, 16 mm.

One specimen taken at Pinetown × at light in April.

× Near Durb

C – *Aciptilus tripunctatus*, n. s. (Pl. XIII., fig. 48).

Capite et antennis cinereis, fronte albido. Alis anticis albis; striga in basi marginis dorsalis brunnea, macula costali supra basim fissuræ brunnea squamis dilutioribus diffusis ad marginem dorsalem ante medium oblique producta; punctis in margine laciniæ anterioris duobus costalibus uno dorsali, strigula in margine anteriore, et puncto in margine dorsali laciniæ posterioris, brunneis. Ciliis dilute brunneis albo interruptis. Posticis cum ciliis nitentibus dilute cinereis, punctulo subobsoleto in apice extremo utriusque digiti.

Head and antennæ cinereous, the front whitish; palpi cinereous. Fore wings cleft to fully one-third of their length, white, with a brown streak along the dorsal margin near the base, followed by an indistinct spot of the same colour before the middle, connected obliquely by a line of paler brownish scales, with a conspicuous brown costal spot above the base of the fissure. There are three dark brown spots on the margins of the anterior lobe, the first surrounded by a paler brownish costal shade, the second also on the costa near the apex, the third on the posterior margin, rather nearer to the apex than the first. Along the middle of the anterior margin of the second lobe is a brown streak, an inconspicuous

small spot of the same colour lying immediately below it on the opposite margin of the lobe. The costal cilia are white, but those within the fissure and beneath the second lobe are brown, interrupted in the middle of each lobe by a white band. Hind wings and cilia pale cinereous, having a very small almost obsolete darker spot at the extreme apex of each lobe ; first and second pairs of legs white, streaked with brown, the third pair white, with a conspicuous brown spot above at the first pair of spurs. The tarsi slightly shaded with cinereous. Expanse, 18 mm.

Two specimens from Spring Vale taken at light in November.

ALUCITIDÆ.

ALUCITA, *Zeller*.

Alucita butleri, Wallgr., Öf. Af. Kongl. Vet. Akad. För., 1875, Arg. 32, p. 130.

Transvaal.

Alucita fortis, n. s. (Pl. XIII., fig. 49).

Capite, thorace, et antennis dilute griseo-fuscis ; palpis griseo-fuscis, plene vestitis, quam capite et thorace longioribus porrectis. Alis anticis subalbidis, costa albido et griseo-fusco maculata, plaga basali oblique marginata in costa latiore griseo-fusca, fascia mediali anguste et margine apicali late griseo-fuscis ; posticis subalbidis ultra medium dilute griseo-fusco latius adumbratis, linea submarginali anguste interne reduplicata griseo-fusca.

Antennæ, head, and thorax pale greyish fuscous; palpi greyish fuscous, densely clothed, projecting more than the length of the head and thorax beyond the front. Fore wings dingy whitish, the costal lobe mottled with greyish fuscous; a basal patch covering about one-fourth of the wing, its outer margin oblique, widest on the costa, greyish fuscous ; a greyish fuscous narrow inwardly oblique central fascia, well defined on its inner, gradually shaded off on its outer, edge. The apical margin is rather widely greyish fuscous, a slender whitish line crossing the lobes before the extreme margin ; a pale greyish fuscous shade lies half-way between the central fascia and the marginal shade. Hind wings of the same dingy whitish colour as the fore wings, with a

rather wide pale greyish fuscous shade beyond the middle, a slender line of the same colour beyond it, followed by a wider one near the margin just before the points of the lobes, each of which bears a small pale greyish fuscous dot. Expanse, 23 mm.

One specimen received from the late Colonel Harvey Tower from South Africa, probably Zululand. A large and conspicuous species, having the wings less deeply cleft than in the European forms of this group; the palpi are also very conspicuously longer and more thickly clothed. This species should probably be made the type of a new genus.

The discovery of allied or intermediate forms may at some future time render it necessary to distinguish them from the original genus *Alucita*.

Alucita ferruginea, n. s.

Two specimens of a new species of *Alucita* in Mr. Gooch's collection are not in sufficiently good condition to be minutely described, but their colour is very different from that of any known species with which I am acquainted. The ground colour of all the wings appears to be yellowish white, and the markings, which are distributed transversely across the wings, as is usual in this genus, are shining pale yellowish ferruginous. Expanse, 14 mm.

Alucita capensis ? F. & R., Reise d. Nov., pl. cxl., fig. 63.

Mr. Gooch's collection contains two specimens, probably referable to this species, but the scarcely satisfactory figure given by Felder and Rogenhofer is accompanied by no description, and by no further assistance to its future recognition than the one remark, "*Accedens* ad *cymatodactylum ?*"

They appear to be allied to *Alucita grammodactyla*, Zell., but, like most of the *Pterophoridæ* in this collection, they are in very imperfect condition.

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FIG.
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8. *Steganoptycha infausta*, Wlsm.
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37. *Ypsolophus siccifolii*, Wlsm.
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47. *Aciptilus adumbratus*, Wlsm.
48. „ *tripunctatus*, Wlsm.
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1.

5a

2.

5b

3.

4.

10a

10b

5.

6.

11a

11b

7.

8.

9.

10.

11.

Edwin Wilson del et lith

Mintern Bros imp

South African Micro-lepidoptera

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18.

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23.

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Edwin Wilson del et lith.

Mintern Bros. imp.

South African Micro-lepidoptera.

25.

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32a.

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33a.

33.

34.

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36.

Edwin Wilson del et lith

Mintern Bros. imp.

South African Micro-lepidoptera.

37.

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40.

41.

41a

42

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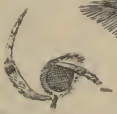

43a

44.

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43b

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47.

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48.

down Wilson del et lith.

Mintern Bros. imp.

South African Micro-lepidoptera

III. *African Micro-Lepidoptera.* By the Right Honble. Lord Walsingham, M.A., F.R.S., F.L.S., &c.

[Read November 5th, 1890.]

Plates III., IV., V., VI. & VII.

I am indebted to many kind correspondents for the material dealt with in this paper. Mr. Gilbert T. Carter, C.M.G., formerly Treasurer and now Administrator of the Gambia Settlements, has sent me many things from Accra and Bathurst, some of which have been dealt with in a previous paper (Trans. Ent. Soc. Lond., 1881, 219—288, Pl. X.—XIII.). Mr. J. M. Hutchinson has collected for me at Kimbolton (Estcourt), Natal. I have also received contributions from Mr. Herbert Druce, Colonel Bowker, Mr. C. G. Barrett, and Mr. F. J. Jackson; the last collection as coming chiefly from the country between Kilima Njaro and the coast is especially interesting. The species described in this paper by no means exhaust the material, and I hope at some future time to work out the remainder. In the meanwhile the present considerable addition to the list of African *Tineidæ* and *Tortricidæ* may perhaps be useful to those who study the subject. The majority appear to belong to well-known European genera, several of which are now recorded for the first time as occurring in Africa.

In my previous paper attention was drawn to certain genera which appear on both sides of the Atlantic; no less than seven additions are here made to this list:—*Phœcasiophora*, Grote, *Œta*, Grote, *Ide*, Chambers, *Polyhymno*, Chambers, *Strobisia*, Clemens, *Anorthosia*, Clemens, and *Zarathra*, Walker. Some of these have a still wider distribution, and will soon be also recorded as Asiatic. The genus *Philobota*, Meyrick, hitherto confined to the Australian region, is here recognised. It is extremely probable that a more intimate acquaintance than I possess with the numerous new Australian genera characterised by Meyrick would show

that other African forms not dealt with in this paper can be rightly referred to some of them. The Indian genus *Timyra*, Walker, is now found to occur in Africa.

Some few corrections are made in the synonymy of described genera: *Nigilgia*, Walker, is identified as equal to *Phycodes*, Guenée; *Polyhymno*, Chambers, turns out to be the same as the South American genus *Copocercia*, subsequently described by Zeller; my African genus *Teratopsis* is Heinemann's *Cacochroa*, with which I have only lately become acquainted in Europe.

Nine new genera are characterised in this paper, seventy-one new species are described and figured, while additional localities are given for many previously known; moreover, some few omissions in my former list of South African species are corrected.

TORTRICIDÆ.

TORTRICINÆ.

Teras, *Tr.*

Teras (*Acleris*, Hb.) *algoana*, F. & R., Reise Nov. Lp., Pl. CXXXVII., 50. (1875), ♀.

Grahamstown (Cape Colony).

This species, with which I am unacquainted, was accidentally omitted from my former paper (Trans. Ent. Soc. Lond., 1881), which professed to give a complete catalogue of South African *Tortricidæ*.

Cacœcia, *Hb.*

Cacœcia adustana, Wlsm.

Grahamstown (Cape Colony); one specimen (*Druce*).

I am only acquainted with the ♀ of this species; the reception of the ♂ may perhaps prove that it should be referred to *Pandemis*.

[Pl. iii., fig. 1.]

Cacœcia occidentalis, sp. n.

Antennæ reddish brown. *Palpi* reddish brown. *Head* deep reddish brown. *Fore wings*, ♂, reddish brown, paler beyond the oblique median fascia, much shaded with purplish fuscous scaling from the base of the dorsal margin nearly to the anal angle; this

fuscous scaling extends upwards as far as the middle of the wing, where a rich chestnut-brown fascia, running obliquely outwards from the middle of the costal margin, meets it and blends with it; a small space on the middle of the dorsal margin is slightly paler than the surrounding surface; towards the apex an obliquely curved shade of rich chestnut-brown is attenuated from the costal margin to the lower half of the apical margin; cilia reddish brown. In the ♀, which is considerably larger than the ♂, the purplish fuscous scaling on the dorsal half of the wing is reduced to two dorsal spots, the first before, the other beyond the middle; these are mixed with chocolate-brown, but the whole wing-surface shows a mottled appearance caused by patches and lines of pale steel-grey scales, visible only in a strong light. *Hind wings* rich brownish ochreous, with a cupreous tinge; cilia paler, with a darker line near their base. *Abdomen and anal tuft* the same colour as the hind wings. *Exp. al.* ♂ 16 mm., ♀ 24 mm.

Hab. Bathurst (Gambia); six specimens. "Taken at light, November and December" (*Carter*).

Type, ♂ ♀, Mus. Wlsm.

Loxotænia, *Stph.*

The genus *Loxotænia* is retained in the present paper, for, although I am inclined to agree with Mr. Meyrick in suppressing it in favour of *Cacœcia* upon the grounds stated in his paper on the classification of the *Tortricina* of Australia (Proc. Linn. Soc. N. S. W., vi., 483 (1882)), it involves a more considerable alteration of accepted nomenclature than would be justified without a detailed examination of a considerable number of North American, as well as African, species, which I am not at present in a position to undertake.

Loxotænia capensana, Wkr.

Estcourt (Natal), two specimens (*Hutchinson*); Grahamstown (Cape Colony), one specimen (*Druce*).

Loxotænia elegans, Wlsm.

Estcourt (Natal), five specimens (*Hutchinson*); Grahamstown (Cape Colony), two specimens (*Druce*); Zululand, one specimen (*collected by the late Col. Harvey Tower*).

PANDEMIS, *Hb.*

Pandemis reciprocana, Wkr.

Teras reciprocana, Wkr., Cat. Lp. Ins. B. M., XXVIII., 295. (1863).

Cacœcia reciprocana, Wlsm., Trans. Ent. Soc. Lond., 1881, 221.

When writing my previous paper I was only acquainted with the ♀ of this species, and was consequently unable to refer it with certainty to *Cacœcia;* I have since received two males, collected at Estcourt (Natal) by Mr. J. M. Hutchinson. These differ from *Cacœcia*, Hb., in not possessing a costal fold, and *reciprocana* should be placed in the genus *Pandemis*, Hb., although the notch in the basal joint of the antennæ of the ♂ is but slightly indicated.

Pandemis dorsiplagana, Wlsm.

Loxotœnia dorsiplagana, Wlsm., Trans. Ent. Soc. Lond., 1881, 222—3.

This species should also be referred to *Pandemis*, Hb.

Grahamstown (Cape Colony), one specimen (*Druce*); Estcourt (Natal), one specimen (*Hutchinson*).

Pandemis capitana, F. & R.

Tortrix capitana, F. & R., Reise Nov. Lp., Pl. CXXXIX., 48—49 (1875).

Cacœcia ? capitana, Wlsm., Trans. Ent. Soc. Lond., 1881, 221—2.

I was unacquainted with this species in 1881, and referred it provisionally to *Cacœcia*. I have since received both sexes, which prove it to be a *Pandemis*.

Grahamstown (Cape Colony), four specimens (*Druce*).

ARGYROTOXA, *Stph.*

[Pl. iii., fig. 2.]

Argyrotoxa tigrina, sp. n.

Antennæ brown at the base, greenish beyond. *Palpi* projected second joint thickly clothed, the scales at its apex projecting slightly beneath the short apical joint; whitish ochreous above,

umber-brown at the sides and beneath. *Thorax* ochreous above, brown at the sides, the tegulæ shining grey. *Fore wings* with the costa very slightly raised in the middle, apex pointed, apical margin oblique, not convex: silvery grey, with four narrow transverse fasciæ, each golden yellow, with an umber-brown central line throughout; the first commencing at one-third from the base, slender, outwardly convex; the second central, stouter, slightly convex outwardly, and differing from the others in the more important umber-brown line nearly covering its outer half; the third at about two-thirds of the wing-length, slightly oblique, tending outwards from costal to dorsal margin, where it terminates just before the anal angle; the fourth, also oblique, terminating beyond the anal angle; beyond these fasciæ is a short transverse streak of a similar colouring, immediately before the apex, preceded by a short costal streak of the same colour; a diffused golden yellow basal-streak above the middle does not reach the first fascia; cilia greyish fuscous. Under side greyish, with small pale ochreous and brown costal spots beyond the middle. *Hind wings* and cilia grey. Under side whitish grey. *Abdomen* darker grey; anal tuft ochreous. *Legs* whitish ochreous. *Exp. al.* 16 mm.

Hab. Estcourt (Natal), one specimen (*Hutchinson*).

Type, ♂, Mus. Wlsm.

[Pl. iii., fig. 3.]

Argyrotoxa flavicostana, sp. n.

Antennæ, head, and face pale straw-colour. *Palpi* greyish fuscous. *Thorax* greyish fuscous, narrowly margined anteriorly with pale straw-colour; tegulæ pale straw-colour. *Fore wings* greyish fuscous, the costal margin pale straw-colour to beyond the apical third; the lower edge of the clearly-defined pale costal band is somewhat sinuous and narrowly margined with whitish; at one-third from the apex a pale straw-coloured transverse streak, or narrow fascia, reaches to the dorsal margin immediately before the anal angle, where it is somewhat dilated, this fascia is much attenuated (almost interrupted) below the costal band, with which it becomes blended, it is narrowly margined on both sides by a whitish line; a pale whitish narrow sinuous line runs from the anal angle around the apical margin; there are a few (4 or 5) small greyish fuscous costal spots in the pale costal band, and a series of spots (about 7) of the same colour runs down the centre of the transverse fascia; cilia pale ochreous, with one or two darker lines. *Hind wings* rather pointed, with the outer margin

very oblique, greyish brown; cilia the same. *Abdomen and legs* greyish brown. *Exp. al.* 13 mm.

Hab. Bathurst (Gambia), three specimens (*Carter*).

Type, ♂ ♀, Mus. Wlsm.

[Pl. iii., fig. 4.]

Argyrotoxa viridis, sp. n.

Antennæ rather more than half the length of the fore wings, brownish fuscous, slightly pubescent. *Palpi* brownish ochreous, dusted externally with fuscous; second joint thickened anteriorly, somewhat coarsely scaled; apical joint obtuse, much shorter than the second. *Head* dull brown, with erect scales above. *Thorax* bright green, with a vermilion-red oblique streak on each side posteriorly. *Fore wings* about twice as long as wide, costa suddenly arched near the base, thence parallel with the dorsal margin to the slightly rounded apex; apical margin straight, somewhat rounded off at the anal angle: bright bluish green, the costal and apical margins narrowly brownish ochreous, on which are a series of about fourteen black dots and spots of different sizes from the base to the apex, some of which are margined on their lower edges with red; along the apical margin are also some black spots, but somewhat suffused and ill-defined; upon the surface of the wing are about seven conspicuous vermilion-red spots or streaks; the first elongate, reniform, extending obliquely downwards, near the base of the wing, to the fold; a second also on the basal third of the wing, elongate, quadrangular, obliquely placed above, beyond, and parallel to the first; below this one is an elongate streak of the same colour, the upper end of which barely crosses the fold, the lower end reaching obliquely the basal third of the dorsal margin; about the middle of the wing is another less elongate quadrangular spot, above which is a streak connected with a black costal spot, and beneath a rather larger oblique streak crossing the fold to the dorsal margin beyond the middle; an elongate oblique streak of the same colour, its upper end somewhat dilated, extends from the upper end of the cell towards the anal angle, but does not reach it; beyond the cell the wing is tinged with dull greyish or purplish fuscous; an undulating narrow whitish line forming the inner edge of the ochreous marginal shade; the middle of the cilia on the apex and apical margin is clouded with greyish or purplish fuscous. *Hind wings* as wide as the fore wings; brown, the costal margin straw-white nearly to the apex, which is produced, the

wing being emarginate beneath; cilia brown. *Abdomen* brown. *Legs* ochreous, clouded with fuscous. *Exp. al.* 14 mm.

Hab. Accra (Gold Coast), one specimen (*Carter*).

Type, ♂, Mus. Wlsm.

CONCHYLINÆ.

CONCHYLIS, *Tr.*

Conchylis trimeni, F. & R.

Malvern (Natal), one specimen (*Bowker*).

[Pl. iii., fig. 5.]

Conchylis tricolor, sp. n.

Antennæ simple; orange at the base, leaden beyond. *Palpi* pale orange. *Head* leaden grey above; face orange. *Thorax* transversely barred with orange in front, leaden grey in the middle, and bright scarlet behind. *Fore wings*, costal and apical portions orange, the extreme costal margin dotted irregularly throughout with leaden grey; a large reniform leaden grey spot before the apex, not reaching the costa, but attenuated downwards to the apical margin above the anal angle; a large leaden grey patch extends from the base nearly to the anal angle, occupying three-fourths of the width of the wing, and approaching the costa at its upper and outer angle at two-thirds from the base, its upper and outer edges irregularly sinuous and clearly defined, the outer edge somewhat transverse, oblique; this leaden patch contains three transverse bright vermilion bars, not reaching to its upper edge, and a spot of the same colour; the first bar near the base touching the dorsal margin is angulated outwards on the fold, the second bar tending a little obliquely inwards from the middle of the dorsal margin is attenuated (almost interrupted) at a point a little above the fold; the third bar starting erect from the dorsal margin is dilated and bent a little inwards at half its length; between the first and second bars, and almost touching the orange costal border, lies a nearly circular spot containing a few black scales before its upper edge, which is narrowly margined with orange; cilia orange. *Neuration* 7 and 8 from a common stem. *Hind wings* with the costal margin depressed before, and the outer margin concave below, the produced but obtusely pointed apex; brownish fuscous; cilia the same, with a slight purplish gloss. *Neuration* 3 and 4 from a common stem, as also 6 and 7. *Abdomen* brownish fuscous. *Exp. al.* 10 mm.

Hab. Bathurst (Gambia), two specimens (*Carter*).

Type, ♂, Mus. Wlsm.

GRAPHOLITHINÆ.

EUDEMIS, *Hb.*

Eudemis botrana, Schiff.

Pietermaritzburg (Natal), October—November, one specimen (*Bowker*).

This species has not apparently been hitherto recorded from South Africa; it has probably been introduced with its well-known food-plant, the grape-vine.

[Pl. iii., fig. 6.]

Eudemis spissana, Z.

Grapholitha spissana, Z., Hand. Kong. Svensk. Vet.-Ak., 1852, 82—3.

This species has much the appearance of a true *Grapholitha*, but agrees in neuration with *Eudemis*, Hb., to which genus it should be transferred. There is only one point in which Zeller's description seems to require an additional note; he describes the four costal streaks before the apex as white; these are of a leaden grey if looked at in an ordinary light, but, being somewhat metallic, they appear almost white if held in certain positions. The type being in Stockholm, I have figured the species, which, I have no doubt, is rightly identified. Zeller was only acquainted with the ♀; I have both sexes.

Estcourt (Natal), four specimens (*Hutchinson*).

BACTRA, *Steph.*

Bactra lanceolana, Hb.

Estcourt (Natal), four specimens (*Hutchinson*).

ECCOPSIS, *Z.*

Eccopsis wahlbergiana, Z.

Bathurst (Gambia), ten specimens (*Carter*).

[Pl. iii., fig. 7).

Eccopsis? nebulana, sp. n.

Antennæ cinereous, a dark spot beneath on each basal joint. *Palpi* pale cinereous; second joint with a blackish spot on the upper edge towards the base, beyond this an oblique transverse bar, followed by some darker shading. *Head* fuscous above; face cinereous, with a conspicuous black spot in front near each eye *Thorax* fuscous, the tegulæ cinereous at the base. *Fore wings* cinereous, mottled with delicately striated patches of leaden grey; with a series of short triangular oblique spots throughout the length of the costal margin separated by pale geminations, the one at half the wing-length being the most important, expanded outwards below the costa, and margined with a pale cinereous line; on the middle of the dorsal margin is a large, very distinct, dark brownish-fuscous patch, rounded at its upper edge above the middle of the wing, and with a slight pointed excrescence at its upper and outer corner, margined throughout by a slender cinereous line; the extreme apex of the wing is brownish fuscous, and below it, arising from about the middle of the apical margin, is a pale brownish or greyish fuscous well-defined and inwardly oblique dash running upwards, but not reaching to the costal geminations; a dark line runs along the apical margin before the greyish cinereous cilia. *Hind wings* greyish fuscous, with a dark line near the base of their paler cilia. *Abdomen* greyish fuscous. *Exp. al.* 18 mm.

Hab. Bathurst (Gambia), one specimen (*Carter*).

Type, ♀, Mus. Wlsm.

I have little doubt that this is a true *Eccopsis*, although no male specimen has reached me. The species is very distinct.

PENTHINA, *Tr.*

[Pl. iii., fig. 8.]

Penthina brevibasana, sp. n.

Antennæ dark greyish fuscous, with the basal joint whitish ochreous. *Palpi* whitish ochreous. *Head* reddish brown above, whitish ochreous in front. *Thorax* dark brown, tegulæ reddish brown. *Fore wings* rather pointed, the apical margin slightly oblique, the costa convex; whitish ochreous, much mottled with olive-grey and chestnut-brown, with a conspicuous short basal patch reddish brown, darkened on its outer half by a strong admixture of deep fuscous scales, its outer edge, leaving the costal

margin at about one-fourth of the wing-length, reaches to beyond one-third of the dorsal margin, and is slightly serrated throughout; this is followed by a large irregularly diffused olivaceous patch, above which, on the costa, are two more olivaceous spots, with indistinct short oblique costal streaklets between, before, and beyond them; beyond the olivaceous patch are streaks and mottlings of chestnut-brown, not reaching to the costal quarter of the wing; cilia shining dark purplish fuscous, almost black. Under side greyish fuscous, with a pale ochreous space along the costal and apical margins, which is irrorated throughout and shaded at the extreme costa near the base with greyish fuscous. *Hind wings* brownish grey, with slightly paler cilia, along the base of which runs a slender line of the wing-colour. *Abdomen* dark brownish grey. *Legs* whitish ochreous. *Exp. al.* 22 mm.

Hab. Estcourt (Natal), one specimen (*Hutchinson*).

Type, ♀, Mus. Wlsm.

A conspicuous and distinct species, easily recognised by the short outwardly oblique dark basal-patch, contrasting somewhat strongly with the paler surface of the wing beyond it.

SERICORIS, *Tr.*

[Pl. iii., fig. 9.]

Sericoris apicipunctana, sp. n.

Antennæ grey. *Palpi* tawny grey, pale beneath and at the extreme apex. *Head* tawny grey, the face paler. *Thorax* tawny grey. *Fore wings* brownish fuscous, with an equal admixture of diffused leaden grey mottlings, the darker shade prevailing only in an ill-defined oblique transverse band beyond the middle; the pale costal geminations are alternated with brownish fuscous spots or streaks, of which two spots at the apex are most conspicuous, the first costal, triangular, and outwardly oblique, the other apical, larger, more rounded, and somewhat inverted; some tawny-brown colouring is visible about the ends of the costal geminations; cilia tawny, paler at the anal angle, a dark line near their base. *Hind wings* brownish fuscous, with paler cilia, along the base of which runs a pale line. *Abdomen* brownish fuscous. *Exp. al.* 12—16 mm.

Hab. Bathurst (Gambia), three specimens (*Carter*).

Type, ♂ ♀, Mus. Wlsm.

PHÆCASIOPHORA, *Grote.*

[Pl. iii., fig. 10.]

Phœcasiophora variabilis, sp. n.

Antennæ simple; greyish fuscous. *Palpi* short and compact the apical joint small, greyish fuscous above, paler beneath. *Head* greyish fuscous, clothed with short rough scales. *Thorax* the same colour as the head. *Fore wings* greyish fuscous, paler along the first half of the dorsal margin, and sometimes with a pale diffused patch on the costal margin before the middle, in which are two or three small dark costal spots; beyond this is a short brownish fuscous oblique costal streak, followed by others of the same colour close to the apex; the most noticeable marking on the wing is a large dark brown patch above the anal angle, paler about the angle itself, but reaching nearly half-way along the dorsal margin, and approaching the costa before the apex at its upper end, where it is deflexed to a point above the middle of the apical margin; this patch is edged with a slender ill-defined greyish white line throughout its inner and upper margin, which meets a short slender greyish white streak coming from the costa immediately before the apex; in the darker portion of the wing is a somewhat distinctly darker shade along the first half of the fold; cilia greyish white at and below the apex and above the anal angle, but dark brown along the middle of the apical margin. Under side unicolorous pale brownish fuscous, the cilia dirty whitish about the apex and anal angle. *Hind wings* brownish fuscous; cilia greyish white, with an obscure dark line along their base. *Abdomen* brownish fuscous. *Exp. al.* 21 mm.

Hab. Bathurst (Gambia), two specimens (*Carter*).

Type, ♂ ♀, Mus. Wlsm.

The species appears to be variable; the general pattern of coloration is probably maintained, but the colours vary from dark greyish fuscous to reddish brown, or chestnut-brown, and perhaps even to other tints in an extended series.

The African form of this genus differs from the North American type, as described by Grote, in having strong tufts of scales on the hind legs in both sexes (not in the male only). It is interesting to find that not only does the allied genus *Eccopsis* of Zeller (equal Clemens' North American *Exartema*), but that this North American genus, described by Grote (Bull. Buff. Soc. N. H., I., 90,

Pl. II., 4—6 (1873)), also occurs on the African continent.

[Pl. iii., fig. 11.]

Phœcasiophora basicornis, sp. n.

Antennæ greyish cinereous, faintly annulated; the basal joint distinctly white above. *Palpi* greyish fuscous; the second joint stout and thickly clothed. *Head and face* dark brownish fuscous, a few dirty whitish scales on the crest. *Thorax* mottled cinereous and fuscous, its anterior edge darker; posterior edge and tegulæ with some brownish scales. *Fore wings* sprinkled and mottled with cinereous, reddish brown, and fuscous, the base reddish brown on the costal half, streaked with very dark fuscous along the costal margin; the reddish brown scaling is continued towards the dorsal margin in scattered patches, forming a sort of ill-defined basal-patch; beyond this is a pale cinereous ill-defined transverse fascia, rather bowed outwards, and much sprinkled with dusky scaling, a patch of grey occupying its central part above the fold; beyond this fascia is a broad transverse shade of chocolate-brown, tinged with grey on its lower half, narrow at the costal, wide at the dorsal margin, slightly oblique and angulated at the middle of its outer edge; beyond the upper half of this chocolate-brown shade is a conspicuous whitish grey subcostal patch, into which a series of four geminated whitish grey streaks run from the costal margin; a chocolate-brown patch encroaches upon the lower edge of the pale subcostal patch, which runs to a subfalcate attenuated point below the apex, where a slender whitish line interrupts the cilia on the apical margin; the chocolate-brown is modified with grey above the anal angle; cilia brown on the upper half, greyish at the lower half of the apical margin. *Hind wings* brownish fuscous, with a dark line throughout the greyish cilia. *Abdomen* brownish fuscous. *Legs* greyish fuscous, the tufts of the posterior tibiæ distinctly whitish at the ends and on their inner sides. *Exp. al.* 23 mm.

Hab. Bathurst (Gambia), one specimen (*Carter*).

Type, ♂, Mus. Wlsm.

I have but one specimen; the species is probably variable, but I think it is quite distinct from the one previously described.

Phoxopteris, *Tr.*

Phoxopteris natalana, Wlsm.

Estcourt (Natal), one specimen (*Hutchinson*).

[Pl. iii., fig. 12).

Phoxopteris oculifera, sp. n.

Antennæ umber. *Palpi* dark umber. *Head* pale umber above, frontal tuft dark umber. *Thorax* pale umber, tegulæ darker. *Fore wings* umber, faintly streaked longitudinally with obscure whitish ochreous lines; the costal margin with short pale whitish ochreous geminations throughout; on the dorsal portion of the wing below the fold, and about and above the anal angle, the pale whitish ochreous streaking more largely prevails; on the extreme falcate apex, above the marginal indentation, is an ovate dark umber spot, enclosed above and below, but not at its ends, by short pale whitish ochreous streaks, giving it an eye-like appearance; cilia pale whitish ochreous, tipped with umber at the apex and on the middle of the apical margin. *Hind wings* greyish umber, with paler cilia, and a dark line along their base. *Abdomen* greyish umber. *Exp. al.* 14 mm.

Hab. Bathurst (Gambia), November, "on species of mallow," one specimen (*Carter*).

Type, ♀, Mus. Wlsm.

[Pl. iii., fig. 13.]

Phoxopteris falcata, sp. n.

Antennæ pale fawn. *Palpi* whitish fawn, rather long, and roughly clothed with long diffuse scales above and beneath the second joint. *Head* whitish fawn. *Thorax* pale fawn. *Fore wings* narrow, elongate, falcate; veins 7 and 8 from a common stem (in which it differs from the typical form of this genus): fawn-colour along the costal third to beyond the middle, deeply shaded with brown on the dorsal and apical portions; the pale costal third is interrupted by a triangular ill-defined brown shade, commencing at the middle of the costal margin; from near the end of the fold a dark brown dash points obliquely upwards towards the apex; the extreme apex shaded with brown, and a dark line along the base of the pale marginal cilia. *Hind wings* brownish fuscous, with a pale line along the base of the cilia. *Abdomen* greyish fuscous. *Exp. al.* 11—12 mm.

Hab. Bathurst (Gambia), "November, taken at light and flying among mallow," two specimens (*Carter*).

Type, ♂ ♀, Mus. Wlsm.

This species is apparently somewhat variable in the extent and definition of the brown shading.

Coptoloma, *Ld.*

[Pl. iii., fig. 14.]

Coptoloma dimidiata, sp. n.

Antennæ pale ochreous. *Palpi* orange ochreous. *Head* ochreous. *Thorax* shining orange ochreous. *Fore wings* shining orange ochreous to one-half their length, sparsely irrorated with purplish fuscous scales; beyond the middle bright orange ochreous, irregularly suffused with purplish fuscous streaks and patches, with three or four very oblique metallic steel-blue costal streaklets; cilia orange ochreous, with a silvery metallic lustre, especially on the lower half of the apical margin, within which three or four small black dots indicate an ocelloid patch; the purplish patches are prolonged further towards the base on the dorsal than on the costal margin. Under side pale greyish fuscous. *Hind wings* fuscous, with paler cilia. Under side pale greyish fuscous. *Abdomen* greyish fuscous. *Legs* whitish ochreous, spotted above on the ultimate tarsal joints. *Exp. al.* 8 mm.

Hab. Bathurst (Gambia), "taken at light early in December," two specimens (*Carter*).

Type, ♂, Mus. Wlsm.

This species differs from its Asiatic ally, known as *Hemerosia aurantiana*, Pryer (Cist. Ent. II., 235, Pl. IV., 12. (1877)), in the more equal division of the pale and dark portions of the fore wing; in *aurantiana* the former predominates.

Dichrorampha, *Gn.*

[Pl. iii., fig. 15.]

Dichrorampha excisa, sp. n.

Antennæ pale brownish fuscous. *Palpi* whitish cinereous. *Head* brownish fuscous; face whitish cinereous. *Thorax* pale brownish fuscous. *Fore wings* somewhat excised below the apex, and bulged above the apical margin: pale brownish fuscous to a little beyond the middle; the remainder of the wing suffused with a delicate mauve or pale lilac tint, obscurely striated with darker shades; the inner edge of this suffused portion of the wing is clearly defined, slightly convex towards the base on the lower two-thirds of the wing-width, and abruptly biangulated beneath the costa; on the costal margin are three or four pairs of pale oblique streaklets, those nearest to the apex being shining silvery; two black dots, one opposite the middle, the other below the middle, of the apical margin, the upper one followed by a silvery spot at the bulge, are

the only indications of an ocelloid spot; cilia shining silvery, with a dark line along their base. *Hind wings* brownish fuscous, with pale cilia, also with a dark line near their base. *Abdomen and legs* greyish fuscous. *Exp. al.* 16 mm.

Hab. Bathurst (Gambia), two specimens (*Carter*).

Type, ♂, Mus. Wlsm.

CHOREUTIDÆ.

CHOREUTIS, *Hb.*

Choreutis bjerkandrella, Thnb.

Estcourt (Natal), two specimens (*Hutchinson*).

SIMÆTHIS, *Leach.*

[Pl. iii., fig. 16.]

Simæthis flavimaculata, sp. n.

Antennæ ciliated in the ♂; brownish fuscous, spotted above with whitish ochreous. *Palpi* pale yellowish, the second joint barred externally with brown, the apical joint with two brown rings, one at the base, the other before the apex. *Head* pale yellowish in front, brown above posteriorly. *Thorax* brown above, the anterior margin broadly pale yellow, with an orange tinge; yellowish beneath. *Fore wings* chocolate-brown, with three conspicuous yellow patches, all slightly tinged with orange; the first at the outer edge of the basal third occupies more than two-thirds the breadth of the wing, beginning narrowly on the costal margin, considerably dilated to the fold, but not reaching the dorsal margin; the other two patches are in the apical third of the wing, one almost touching the costal margin, and with a slender yellow curved costal streak immediately preceding it, the other, which is larger, situated just above the anal angle, rounded in form like the smaller one above it, and also not actually reaching the margins of the wing; cilia brownish at the base, paler outwardly. Under side brownish, with a faint whitish ochreous spot beyond the middle of the costal margin. *Hind wings* brown, with a small indistinct irregular yellowish patch radiating from their base to the middle; cilia cinereous, with a brown line along their base. Under side brownish. *Abdomen* dark brown, a few paler scales at the base laterally. *Legs* brown; posterior tibiæ, tarsi, and spurs conspicuously banded and spotted with yellow. *Exp. al.* 14 mm.

Hab. Zanzibar, one specimen (*Jackson*).

Type, ♂, Mus. Wlsm.

ATYCHIADÆ.

ATYCHIA, *Latr.*

Atychia quiris, F. & R.

Cape Colony, two specimens (*G. F. Mathew*).

[Pl. iii., fig. 17.]

Atychia albiciliata, sp. n.

Antennæ brownish fuscous. *Palpi* brownish above, except at the base; the base and under side white, except on the apical joint, which is brownish above and below. *Head* brownish fuscous. *Thorax* blackish (perhaps slightly darkened by greasiness). Under side fuscous, with some shining scales. *Fore wings* narrow; brownish fuscous, sprinkled with greyish scales, especially on the outer half; a faint pale line about the base of the cilia, which are brownish fuscous, slenderly tipped with white. Under side brownish fuscous, with a subapical patch and central streak white. *Hind wings* wider than the fore wings; clear pure white, with brownish fuscous base, and with a broad brownish fuscous band of nearly half their width running around the hind margin and apex, widest about the base and middle; cilia pure white, except at the apex, where they are touched with brownish. Under side with markings similar to those on the upper surface. *Abdomen* black, each segment with a very narrow white ring posteriorly, the three ultimate annulations more conspicuous than the others. Under side fuscous, with some shining scales. *Exp. al.* 15 mm.

Hab. Estcourt (Natal), one specimen (*Hutchinson*).

Type, ♂, Mus. Wlsm.

A small species allied to *A. quiris*, F. & R., but more distinctly marked.

PHYCODES, *Gn.*

[Pl. iii., fig. 18.]

Phycodes punctata, sp. n.

Antennæ greyish fuscous, paler beneath, with the basal joint whitish on the under side. *Palpi* white, the apical joint very short, not projecting beyond the head, tinged with grey above. *Head* leaden grey above, white beneath; face shining metallic dark fuscous. *Thorax* leaden grey, with a shining submetallic gloss. *Fore wings* shining leaden grey, with black spots, the scales so arranged as to give the appearance of minute transverse striæ under the lens; on the extreme costal margin are five very small spots

rom the base, followed by one slightly larger, one beyond the middle, which is again followed by two small and one larger, beyond which are one or two small ones before the apex; the other spots are six distinct ones and one small one, arranged as follows: one above and one below the fold, before the middle of which the lower one is considerably nearer to the base than the upper one; a transverse line of three beyond the middle parallel with the slightly oblique apical margin; beyond these one distinct spot below the middle of the apical margin, but not touching it, and above this one small one rather indistinct; cilia shining leaden grey with a bronzy tinge. Under side pale brownish fuscous. *Hind wings* brownish fuscous, showing two pale spaces radiating from the base to about half the width of the wing; cilia white, tinged with fuscous at the apical and abdominal angles. Under side pale brownish fuscous. *Abdomen* greyish fuscous above, beneath bright glossy shining white. *Legs* greyish fuscous, faintly pale spotted above, beneath bright glossy shining white. *Exp. al.* 20 mm.

Hab. Estcourt (Natal), one specimen (*Hutchinson*).

Type, ♂, Mus. Wlsm.

[Pl. iv., fig. 19.]

Phycodes substriata, sp. n.

Antennæ fuscous. *Palpi* fuscous. *Haustellum* brown, long, and naked. *Head* greyish fuscous; face shining bronzy. *Thorax* cinereous, speckled with fuscous above, pure white beneath. *Fore wings* cinereous, densely striated with slender transverse brownish fuscous lines, and with one fascia and several costal and discal spots also brownish fuscous; the fascia is narrow and straight from costal to dorsal margin at about one-third from the base; it is preceded by two small costal spots, and followed by three or four others, also costal, with faint indications of other diffused costal spots towards the apex; at about two-thirds from the base is a single spot just beyond the end of the cell, with three smaller ones above, below, and before it; the apical margin is strongly tinged with shining bronzy brown; cilia shining bronzy. *Hind wings* brown, with whitish cilia, except at the extreme apex. *Abdomen and legs* greyish fuscous above, white beneath. *Exp. al.* 17—18 mm.

Hab. Zanzibar, three specimens (*Jackson*).

Type, ♂, Mus. Wlsm.

This species is closely allied to *Phycodes minor*, Wlsm., an Indian form.

[Pl. iv., fig. 20.]

Phycodes albitogata, sp. n.

(*Antennæ and palpi* broken). *Head* whitish grey, speckled. *Thorax* whitish grey, speckled with bronzy fuscous above, white beneath. *Fore wings* whitish grey, with delicate transverse bronzy fuscous striæ throughout, and with two distinct straight transverse fasciæ; the first one at one-third from the base, bronzy black, containing two shining metallic brassy yellow bars, reaching throughout from costal to dorsal margin; the second at two-thirds from the base, narrower than the first, slightly interrupted above the fold, and containing one shining metallic brassy yellow bar; the apical portion of the wing beyond the second fascia is slightly shaded as well as striated with bronzy fuscous, and groups of shining metallic brassy yellow scales lie along the apical margin from the apex nearly to the anal angle; there is a small bronzy fuscous streak on the extreme costal margin at the base; cilia shining bronzy brown. Under side unicolorous brown. *Hind wings* shining semi-transparent white, with a strong lilac hue, and having a broad brown band along the costal margin; cilia delicate white, with a more opaque white line along their base, merging into brown at the extreme apex. Under side lilac-white, with a broad brown band along the costal margin, widening from the base outwards. *Abdomen* shining greyish white above, white beneath. *Legs* white. *Exp. al.* 16 mm.

Hab. Bathurst (Gambia), one specimen (*Carter*).

Type, ♀, Mus. Wlsm.

This species differs from *Nigilgia adjectella*, Wkr., in the second fascia having but one metallic line or bar instead of two, in the absence of a metallic line from this fascia to the apex, and in its paler colour and white hind wings.

Phycodes adjectella, Wkr.

Nigilgia adjectella, Wkr., Cat. Lp. Ins. B. M., XXVIII., 512. (1863).

I am unable to separate *Nigilgia* from *Phycodes*, Gn., a genus which has hitherto been confined to the Indian region, but which is apparently equally well represented in Africa. Walker's type was received from Sierra Leone. I have in my collection a specimen, also a female, received from Mr. F. J. Jackson, who met with it at Tangani, Kolumbi Creek (East Africa), in August, 1885.

TINEIDÆ.

TALÆPORIANÆ.

DISSOCTENA, *Stgr.*

[Pl. iv., fig. 21.]

Dissoctena affinis, sp. n.

Antennæ bipectinate, each of the long pectinations slender and pubescent. *Palpi* very short, subochreous. *Head* brownish cinereous. *Thorax* cinereous. *Fore wings* with rather straight costa, rounded apex, and oblique (scarcely convex) apical margin: brownish cinereous, with two indistinct paler subochreous costal patches beyond the middle, and before the middle a very indistinct oblique fascia-form shade of the same colour, dilated outwards from costal to dorsal margin; about three very indistinct subochreous spots on the lower half of the apical margin before the brownish cinereous cilia. *Hind wings* slightly darker than the fore wings, and with a more fuscous shade owing to the absence of subochreous scaling; cilia unicolorous. *Abdomen and Legs* cinereous fuscous. *Exp. al.* 14 mm.

Hab. Estcourt (Natal), three specimens (*Hutchinson*).

Type, ♂, Mus. Wlsm.

The subochreous markings on this plainly coloured species are very indistinct, and probably almost obsolete on some examples, unless taken in fine condition. They seem to constitute a sufficient ground for separating the species from the South European *D. granigerella*, Stgr., to which it is nevertheless closely allied.

It seems desirable to subdivide the *Tineidæ* of Heinemann as follows:—

A. Maxillary palpi obsolete.
   1. Fore wings with veins 7 and 8 arising from a common stem out of vein 9 = SETOMORPHINÆ.
   2. Fore wings with veins 7 and 8 *not* arising from a common stem out of vein 9 = EUPLOCAMINÆ.

B. Maxillary palpi 4—6-jointed = TINEINÆ.

SETOMORPHINÆ.

SETOMORPHA, *Z.*

[Pl. vii., fig. 73.]

The neuration of *Setomorpha rutella*, Z. (the type of the genus), is as follows:—

Fore wings 12 veins; 7 and 8 arising from a common stem out of 9, 7 to apex; 5 and 6 slightly curved, parallel; 3 and 4 from a *very short* common stem; 2 from near angle of cell, curved at origin. *Hind wings* 8 veins; 2 and 3 from a point at angle of cell; 5 and 6 from a common stem, 6 to apex.

Hapsifera, Z., agrees with *Setomorpha* in having 7 and 8 of the fore wings stalked out of vein 9, but differs in the form of the palpi, and in having 5 and 6 of the hind wings, as also 2 and 3, separate.

Ischnopsis, Wlsm., should probably be placed in the neighbourhood of these two genera.

Zeller's type of *Setomorpha rutella* is apparently unique, but I have three or four undescribed African species closely allied to it.

EUPLOCAMINÆ.

AUTOCHTHONUS, gen. n.

(αὐτόχθονος = bred of the soil.)

Type. *Autochthonus chalybiellus*, Wlsm.

[Pl. vii., fig. 74.]

Antennæ [♂ ?]: ♀ simple. *Labial palpi* coarsely clothed beneath; second joint more than twice the length of the apical joint, the latter projecting obliquely upwards, cylindrical, more or less acute. *Maxillary palpi*, *Haustellum*, *and Ocelli* obsolete. *Head* rough. *Fore wings* narrow, elongate, tufted above, apex depressed, rounded, costal and dorsal margins evenly receding from it. *Neuration* 12 veins; 7 and 8 from a common stem, forming a short fork, 7 to apex; 9 from the same point as this stem; the other veins separate; two internal veins, one running throughout the length of the cell from between 4 and 5; the other, a shorter vein, cuts off the upper angle of the cell to the base of vein 10. *Hind wings* elongate-lanceolate, apex slightly rounded, the margins evenly receding from it, but the dorsal margin is slightly more convex than the costal. *Neuration* 8 veins; 2 curved from the outer third of cell; 3 and 4 from a point at the lower angle of cell; 5 and 6 from a common stem; one internal vein running throughout the length of the cell.

This genus differs from *Euplocamus*, Latr., in the structure of the antennæ, and in having veins 5 and 6 of the hind wings from a common stem, and 3 and 4 from a point.

[Pl. iv., fig. 22).]

Autochthonus chalybiellus, sp. n.

Antennæ simple; ochreous. *Palpi* pale ochreous, the erect apical joint naked; second joint thickly clothed with projecting scales beneath. *Head* pale ochreous. *Fore wings* mottled rather transversely throughout with about equal proportions of shining steel-grey, rich dark brown, and pale ochreous, the latter prevailing in the numerous tufts of raised scales which are scattered over the wing-surface; these are sometimes shielded with steel-grey on their anterior sides; the most conspicuous of these tufts are, one above the middle of the dorsal margin but below the fold, another above it near the costal margin, and another about the anal angle of the cell; but the whole wing-surface is very roughly scaled (the species calling to mind the paler but very similar *Euplocamus horridella*, Wkr., from which it differs, as subsequently stated); cilia mixed brownish and pale ochreous, paler at the anal angle. *Hind wings* æneous, with a purplish gloss; cilia shining greyish. *Abdomen* brownish grey; anal tuft ochreous. *Exp. al.* 14—16 mm.

Hab. Bathurst (Gambia), two specimens (*Carter*).

Type, ♀, Mus. Wlsm.

Scalidomia, gen. n.

(σκαλίς = a hoe, ὦμος = shoulder).

Type. *Tinea horridella*, Wkr.

[Pl. vii., fig. 75.]

Antennæ stout, very slightly serrated towards the apex, two-thirds the length of the fore wings. *Labial palpi*, second joint slightly recurved, clothed with projecting scales beneath; apical joint obliquely erect, cylindrical, obtuse, about one-third the length of the second joint. *Maxillary palpi*, *Haustellum*, *and Ocelli* obsolete. *Head* rough. *Fore wings* elongate, apical margin obliquely convex, apex rounded, width equal to about one-third the length; wing-surface more or less tufted with raised scales. *Neuration* 11 veins; 7 and 8 from a common stem, 7 to apex; the other veins separate; an internal vein runs from the space between 5 and 6 to between 9 and 10. *Hind wings* lanceolate-ovate, apex produced, rounded; dorsal margin convex, costal margin nearly straight, slightly depressed from the middle. *Neuration* 8 veins; 3 and 4 somewhat approximate at base; 6 and 7 parallel; two internal veins, one from base of 4, the other from

base of 6, meet in the middle of the cell, and are apparently continued to the base in a common stem.

This genus differs from *Euplocamus*, Latr., in the structure of the antennæ, and in having but 11 veins in the fore wings.

Scalidomia horridella, Wkr.

Tinea horridella, Wkr., Cat. Lp. Ins. B. M., XXVIII., 474. (1863).

Euplocamus horridellus, Wlsm., Trans. Ent. Soc. Lond., 1881, 237—8.

Malvern (Natal), three specimens (*Bowker*); Estcourt (Natal), one specimen (*Hutchinson*).

BARBAROSCARDIA, gen. n.

(βάρβαρος = foreign, *scardia* (nom. gen.)).

Type. *Barbaroscardia fasciata*, Wlsm.

[Pl. vii., fig. 76.]

Antennæ ♂ strongly ciliated. *Labial palpi* roughly clothed beneath; the short projecting apical joint slender, naked, slightly shorter than the second joint. *Maxillary palpi, Haustellum, and Ocelli* obsolete. *Head* rough. *Fore wings* ovate, apex evenly rounded, costal and dorsal margins convex. *Neuration* 11 veins; 7 and 8 from a common stem, 7 to apex; rest separate; one internal vein running from the base of 6 to the base of 10. *Hind wings* as broad as the fore wings, ovate, costal margin straighter and less convex than the dorsal, apex rounded. *Neuration* 8 veins; 3 and 4 arising from a point at the lower angle of the cell; 5 distinctly separate from 4, nearly parallel with 6 and 7; one internal vein from between 5 and 6 dividing the cell throughout.

This genus differs from *Euplocamus*, Latr., in the structure of the antennæ, and in having only 11 veins in the fore wings.

[Pl. iv., fig. 23.]

Barbaroscardia fasciata, sp. n.

Antennæ pale brownish, ciliated in the male. *Palpi* whitish ochreous, slightly darker at the sides and at the base of the apical joint, projecting, scarcely upturned. *Head* whitish ochreous, densely clothed above. *Fore wings* whitish ochreous, sprinkled with scattered brown scales; a distinct brown transverse fascia lies at one-third of the wing-length, and is followed on the outer

half of the wing by three cuneiform brown spots, two costal and one dorsal, all pointing downwards, and sufficiently connected to form a V-shaped mark, with its apex approximate to the anal angle; the lower extremities of the two costal spots impinge upon the opposite upper corners of the dorsal spot, which occupies the lower half of the wing; cilia whitish ochreous, with a few small brownish spots at their bases. *Hind wings* grey, with scarcely paler cilia. *Abdomen* grey. *Legs* whitish ochreous. *Exp. al.* 14 mm.

Hab. Delagoa Bay (E. Africa); two specimens (*Druce*).

Type, ♂, Mus. Wlsm.

A distinct form, perhaps allied to *Euplocamus stupens*, Wlgrn.

LASIOCTENA, *Meyr.*

Lasioctena sisyræa, Meyr., Trans. Ent. Soc. Lond., 1887, 279.

Grahamstown (Cape Colony).

COMPSOCTENA, *Z.*

Compsoctena primella, Z.

I am fortunate in having received the female of this species. It does not fulfil Zeller's prophecy that it would probably prove to be apterous (Hand. Kong. Svensk. Vet.-Ak., 1852, 87), nor my own suggestion that it would have smaller wings and a larger body than the male (Trans. Ent. Soc. Lond., 1881, 227); on the contrary, the wings are larger (exp. al. ♂ 16—18 mm., ♀ 20 mm.).

The body is long and fringed at the sides posteriorly, the ovipositor is conspicuously produced and abruptly squared at the end, not acute. The antennæ are thickly and coarsely scaled, not with clearly divided pectinations, as in the male; but they are in some degree pectinated, the pectinations compressed together, and lying forward along the stem of the antenna. The palpi are roughly clothed with long scattered hair-scales, less closely appressed than in the male. The coloration is much the same as in the male.

There can now be no doubt that this genus should be placed among the *Tineidæ*, where it should stand in the

neighbourhood of *Euplocamus*, Latr., from which it differs chiefly in the separation of veins 7 and 8 of the fore wings. The genus *Lasioctena*, Meyr., seems to differ from *Compsoctena* in the structure of the palpi, which are recurved, and in having veins 6 and 7 of the hind wings approximate at the base. I think I have an undescribed species belonging to this genus.

Malvern (Natal), two specimens (*Bowker*); Grahamstown (Cape Colony), one specimen (*Druce*).

TINEINÆ.

TINEA, *Z.*

Tinea vastella, Z.

Bedford (Cape Colony), one specimen (*Druce*); Grahamstown (Cape Colony), three specimens (*Druce*); Cape Colony, eight specimens (*Zell. Coll.*); Estcourt (Natal), one specimen (*Hutchinson*); Malvern (Natal), one specimen (*Bowker*); Caffraria, one specimen (*Zell. Coll.*); Delagoa Bay (East Africa), one specimen (*Druce*); Kilima Njaro (East Africa), three specimens (*Jackson*); Sudan, two specimens (*Zell. Coll.*), three specimens (*Frey Coll.*).

Tinea tapetzella, Z.

Grahamstown (Cape Colony), one specimen (*Druce*).

This species has apparently not been previously recorded from South Africa.

Tinea fuscipunctella, Hw.

Estcourt (Natal), (*Hutchinson*).

[Pl. iv., fig. 24.]

Tinea zebra, sp. n.

Antennæ whitish ochreous. *Palpi* whitish ochreous. *Head* yellow. *Thorax* brown, inclining to ochreous posteriorly. *Fore wings* pale shining ochreous, the basal third of the costal margin narrowly brown; a brown longitudinal basal streak, tapering outwards, runs along the fold to the anal angle, where it is connected with a brown shade which is continued along the base of the cilia around the apex; a wedge-shaped shade of scattered brown scales points inward from the apex, and terminates in a brown spot and a slender brown line about the end of the cell; cilia pale shining ochreous. Under

side brownish, with pale cilia. *Hind wings and cilia* shining whitish ochreous. *Abdomen and legs* ochreous. *Exp. al.* 14 mm.

Hab. Grahamstown (Cape Colony), three specimens (*Druce*).

Type, ♂, Mus. Wlsm.

BLABOPHANES, *Z.*

Blabophanes longella, Wkr.

Gambia, one specimen (*Druce*); Zululand, one specimen received from the late Col. Harvey Tower.

Blabophanes monachella, Hb.

Bathurst (Gambia), "November—December," one specimen (*Carter*).

This widely-distributed species is apparently new to the African fauna, but this and *longella* are probably only varieties of one species.

Blabophanes speculella, Z.

Estcourt (Natal), three specimens (*Hutchinson*).

Blabophanes rejectella, Wkr.

Estcourt (Natal), three specimens (*Hutchinson*).

Blabophanes rutilicostella, Stn.

Estcourt (Natal), two specimens (*Hutchinson*).

NEMOPHORA, *Hb.*

Nemophora elongatella, Wlsm.

I notice that this species differs slightly in neuration from the European forms of *Nemophora;* veins 5 and 6 of the hind wings are separate, and the cell is somewhat longer.

Estcourt (Natal), three specimens (*Hutchinson*).

CEROMITIA, *Z.*

N. syn. = *AGISANA*, Mschl. (1883).

This genus is distinguished from *Nemophora* by its shorter maxillary palpi, and by having veins 8 and 9 of the fore wings and 5 and 6 of the hind wings separate: it is undoubtedly allied to *Nemophora*.

IES 1891 (iii 1891)

Ceromitia wahlbergi, Z.

Estcourt (Natal), two specimens (*Hutchinson*); Malvern (Natal), one specimen (*Bowker*).

Ceromitia turpisella, Wkr.

Nemophora turpisella, Wkr., Cat. Lp. Ins. B. M., XXVIII., 497 (1863).

N. syn. = *Agisana caffrariella*, Mschl., Ver. Z.-b., Ges. Wien., XXXII., 308—9, Pl. XVI., 24 (1883).

This species belongs properly to the genus *Ceromitia*, but the neuration does not appear to be constant; veins 8 and 9 of the fore wings being coincident at the base in some specimens, although not necessarily in both wings; the separation of veins 5 and 6 of hind wings is, however, a constant character.

Annshaw (Cape Colony), one specimen (*Barrett*); Estcourt (Natal), one specimen (*Hutchinson*); Malvern (Natal), one specimen (*Bowker*); Delagoa Bay (East Africa), two specimens (*Druce*).

Ceromitia alternipunctella, Wlsm.

Nemophora alternipunctella, Wlsm., Trans. Ent. Soc. Lond., 1881, 245—6.

This species must also be placed in *Ceromitia*.

Grahamstown (Cape Colony), one specimen (*Druce*).

ADELINÆ.

ADELA, *Latr.*

[Pl. iv., fig. 25.]

Adela cuneella, sp. n.

Antennæ in the ♂ about twice as long as the fore wings; brownish above, hoary beneath, the basal third spotted with whitish on the upper side. *Palpi and Head* very roughly clothed with long hair-like scales, brownish fuscous above, hoary beneath. *Thorax* brownish fuscous above, hoary beneath. *Fore wings* hoary, thickly clothed with closely-packed elongate bronzy-brown scales, in some lights showing metallic lustre; at two-thirds of the wing-length is an outwardly oblique, cuneiform, whitish costal streak reaching half-across the wing, margined with bronzy brown on each side, the inner margin slightly darker than the outer; at the apex of the wing is a rather distinct small curved fuscous line at the base of the cilia, which beyond it are white, tipped with bronzy

brown; this curved line is preceded in the costal cilia by a short inwardly oblique whitish streak, margined by bronzy-brown scales, and below it, in the cilia of the apical margin, are a few corresponding whitish scales, below which is a slender broken bronzy line at the base of the cilia, which are dirty white, shading to bronzy brown at the anal angle. *Hind wings* bronzy brown, with a darker line along the base of the unicolorous cilia. *Abdomen and Legs* fuscous; tarsal joints spotted with white. *Exp. al.* 10—11 mm.

Hab. Estcourt (Natal), two specimens (*Hutchinson*).

Type, ♂, Mus. Wlsm.

A small, rather obscure species, but very distinct from any of its known European or American allies.

NEMOTOIS, *Hb.*

[Pl. iv., fig. 26.]

Nemotois humilis, sp. n.

Antennæ bronzy, faintly annulated, rather more than twice as long as the fore wings. *Palpi* very short, roughly clothed with hair-like scales. *Head* dull purplish fuscous. *Thorax* shining bronzy. *Fore wings* shining bronzy, without markings; the metallic scales are arranged in lines throughout, divided from each other by the darkened ground colour, which is scarcely visible between them. *Hind wings* purplish, with scarcely paler purplish cilia. *Abdomen* fuscous. *Legs* fuscous; the posterior tarsal joints faintly pale spotted. *Exp. al.* 8 mm.

Hab. Delagoa Bay (East Africa); five specimens (*Druce*).

Type, ♂, Mus. Wlsm.

A very small unicolorous species allied to *cupriacellus*, Hb.

HYPONOMEUTINÆ.

HYPONOMEUTA, *Z.*

Hyponomeuta subplumbellus, Wlsm.

Estcourt (Natal), one specimen (*Hutchinson*).

Hyponomeuta strigillatus, Z.

Hyponomeuta strigillatus, Z., Hand. Kong. Svensk. Vet.-Ak., 1852, 102—3.

N. syn. = *Hyponomeuta perficitellus*, Wkr., Cat. Lp. Ins. B. M., XXVIII., 531—2 (1863).

Delogoa Bay (East Africa), two specimens (*Druce*); Accra (Gold Coast), (*Carter*).

Hyponomeuta morbillosus, Z., Hor. Soc. Ent. Ross., XIII., 222—3, pl. III., 66 (1877).

Zanzibar.

This species was omitted from my previous paper (Trans. Ent. Soc. Lond., 1881).

[Pl. iv., fig. 27.]

Hyponomeuta puncticornis, sp. n.

Antennæ pale leaden grey, with a minute spot on the upper side of the basal joint. *Palpi* short, porrected; pale leaden grey, unspotted. *Head* pale leaden grey. *Thorax* pale leaden grey, with five black spots and one on the anterior half of each of the tegulæ; the thoracic spots are arranged as follows: two anterior adjacent; two median, more widely separated; one posterior, remote. *Fore wings* shining pale leaden grey, with about fifteen black spots; a line of four or five near the costal margin, the last only beyond the middle, the last but one about the middle; a line of four above the fold, the last slightly beyond the middle; a line of four below the fold, the last slightly beyond the outer spot of the middle line; two or three more near the apical margin before the cilia; cilia pale leaden grey. Under side dark greyish fuscous. *Hind wings* shining leaden grey, scarcely darker than the fore wings; cilia slightly darker than the hind wings. Under side slightly paler than in the fore wings. *Abdomen* dark greyish fuscous. *Exp. al.* 24 mm.

Hab. Delagoa Bay (East Africa), two specimens (*Druce*).

Type, ♂ ♀, Mus. Wlsm.

Œta, *Grote*.

[Pl. iv., fig. 28.]

Œta carteri, sp. n.

Antennæ somewhat serrated, thickened, purplish fuscous; apical third snow-white, spotted above with fuscous and tipped with fuscous. *Palpi* recurved to middle of face, purple. *Haustellum* orange. *Head* deep purple, with two conspicuous snow-white lateral spots behind the antennæ and two on the face. *Thorax* deep purple, with two anterior snow-white spots, somewhat smaller than those behind the antennæ; one central snow-white spot behind the middle, and two small snow-white lateral spots beneath

the tegulæ. *Fore wings* deep shining purple, with from fifteen to eighteen conspicuous snow-white spots, mostly circular; one at the middle of the base, three on the costa, of which two are on the basal half, and one at the commencement of the apical fourth, the latter somewhat produced downwards; two spots in the basal half on the dorsal margin, the first circular, the second smaller and semi-circular; between these and the first two of the costal spots is a large round spot crossing the fold; immediately beyond the middle of the wing are two similar ones, of which the lower one is the larger, and lies immediately below the fold; beyond these again is an elongate reniform spot, produced downwards to the fold; between this and the anal angle is another circular spot, not touching the dorsal margin; in the apical fourth of the wing are three spots, one somewhat reniform, produced downwards, but not parallel with the apical margin, the other two are above it, both circular, the outer one being the smaller; besides these spots above mentioned there are three or more very small spots, of which the most conspicuous are one between the two reniform spots, one above the first reniform spot, and one below the costal margin before the apex; cilia bright shining copper-brown. Under side dull fuscous, deep purple towards the apex and apical margin; a white spot on the costal margin at one-fourth from the apex, and a small white spot below and beyond it; these correspond with the similar spots on the upper side of which others are more or less visible. *Hind wings* copper-brown on the basal half, tending to purplish fuscous outwardly; cilia bright purple about the apex, copper-brown towards the base. Under side brownish, shading to deep purple at the apex, where there are two conspicuous white spots, the one on the costal margin, the other below and beyond it between veins 6 and 7; the costal spot only is visible on the upper side. *Abdomen* copper-brown, anal segment deep purplish fuscous. Under side bright purple, copper-brown at sides and base, with a white band at the commencement of the purplish colouring, followed by two white spots near it, and a conspicuous white patch on the penultimate segment. *Legs* bright purple, banded and spotted with white on the tibiæ; the anterior pair with two large white spots at the base of the femora. *Exp. al.* 24 mm.

Hab. Bathurst, May; one specimen (*Carter*).

Type, ♀, Mus. Wlsm.

I have named this beautiful and distinct species after Mr. Gilbert T. Carter, to whom I am so deeply indebted for his assiduous efforts to increase my collection of African Micro-Lepidoptera.

GYMNOGRAMMA, *Z.*

[Pl. iv., fig. 29 ; Pl. vii., fig. 77.]

Gymnogramma hutchinsoni, sp. n.

Antennæ fuscous. *Palpi* leaden grey. *Head* fuscous, a collar of reddish orange dividing the head from the thorax. *Thorax* leaden grey. Under side leaden grey, orange-red in front near the head. *Fore wings and cilia* unicolorous leaden grey. Under side orange reddish, except the outer third and costal margins, which are fuscous. Neuration 12 veins; all separate; with a supplementary cell caused by 5 being continued through the cell to the base of 11; 1 forked at base. *Hind wings and cilia* orange-red. Under side orange-red, except at the base. Neuration 8 veins; with a supplementary cell; the internal nervule commences near the base of 6, and is curved downwards, encroaching on the lower cell; 3 and 4 from a point at lower angle of cell; 2 from slightly beyond outer third of cell. *Abdomen* fuscous, fringed with orange-red at the sides posteriorly; the anal segment entirely orange-red. Under side orange-red, except at the base. *Exp. al.* 16 mm.

Hab. Estcourt (Natal), three specimens (*Hutchinson*).

Type, ♂ ♀, Mus. Wlsm.

This species differs from *G. rufiventris*, Z., in the absence of a dark apical margin and cilia to the upper side of the hind wings, and in its leaden rather than brown fore wings.

EUSTIXIS, *Hb.*

Eustixis flavivittella, Wlsm.

Delagoa Bay (East Africa), two specimens (*Druce*); Estcourt (Natal), one specimen (*Hutchinson*).

PLUTELLINÆ.

PLUTELLA, *Schrk.*

Plutella cruciferarum, Z.

Grahamstown (Cape Colony), 16 specimens (*Druce*); Estcourt (Natal), five specimens (*Hutchinson*); Gambia, two specimens (*Druce*).

Not hitherto recorded from South or West Africa.

GELECHIANÆ.

GELECHIA, *Z.*

Gelechia rescissella, Z.

Estcourt (Natal), one specimen (*Hutchinson*).

Gelechia zetterstedtiella, Z.

Estcourt (Natal), seven specimens (*Hutchinson*).

Gelechia aglossella, Wkr., Cat., Lp. Ins. B. M., XXXV., 1830—1 (1866).

Cape.

This species was omitted from my previous paper.

[Pl. iv., fig. 30.]

Gelechia hutchinsonella, sp. n.

Antennæ brownish fuscous, faintly pale-spotted above, paler beneath. *Palpi* pale stramineous, banded with fuscous before the end of the apical joint, and with a brownish fuscous spot at the base of the second joint externally. *Head* pale stramineous. *Thorax* stramineous; patagia with a brown spot at their base. *Fore wings* stramineous, with a brownish fuscous spot at the extreme base of the costa, thence shaded with greyish fuscous along the costal margin nearly to the commencement of the costo-apical cilia; along the centre of this costal shade a line of chestnut scales can be traced in fresh specimens, reaching to half the length of the wing; contiguous to the lower edge of the costal shade, but before the middle, is a distinct black spot; a conspicuous greyish fuscous patch lies on the dorsal margin contiguous to the anal angle, its rounded inner edge narrowly margined by a line of black scales, its outer extremity touched with chestnut; this patch is connected at the anal angle with a shade of the same colour, which follows the apical margin to the apex, interrupted only by a small marginal spot of the pale stramineous ground colour, immediately below the apex, by which the darker shade appears to be deflected inwards; cilia greyish fuscous. *Hind wings and cilia* grey. *Abdomen* grey. *Legs* greyish, faintly pale-speckled. *Exp. al.* 10—14 mm.

Hab. Estcourt (Natal), eight specimens (*Hutchinson*). Tangani (Kolumbi Creek, East Africa), August, one specimen (*Jackson*).

Type, ♂ ♀, Mus. Wlsm.

[Pl. iv., fig. 31.]

Gelechia palpigera, sp. n.

Antennæ ochreous. *Palpi* dark brown, with the apical joint and a spot at the apex of the second joint white. *Head and Thorax* greyish ochreous. *Fore wings* greyish ochreous, paler along the base of the costal half; a brown spot at the extreme base of the costal margin is connected by a slender line along the margin with a brown shade on the outer half of the costa, which, commencing very obliquely, is margined internally by a whitish line, and interrupted about half-way to the apex by a similar, slender, very oblique whitish line running to a whitish subapical patch (not visible in every specimen), below which are a few dark scales at the base of the dorsal cilia; on the wing-surface a small fuscous spot lies beyond the end of the cell, opposite the base of the second white costal streak; and in another specimen this is preceded by two similar spots, one on the fold and one on the disk, about equidistant from the other two; cilia greyish ochreous. Under side unicolorous brownish ochreous. *Hind wings and cilia* dark grey. *Abdomen* brownish ochreous. *Legs* greyish ochreous. *Exp. al.* 14—17 mm.

Hab. Delagoa Bay (East Africa), two specimens (*Druce*).

Type, ♂ ♀, Mus. Wlsm.

The larger specimen has the three spots, the smaller only one.

Brachmia, *Hein.*

Brachmia trigella, Z.

Estcourt (Natal), two specimens (*Hutchinson*).

Brachmia subsecivella, Z.

Estcourt (Natal), one specimen (*Hutchinson*).

Anacampsis, *Crt.*

Anacampsis lamprostoma, Z.

Gelechia lamprostoma, Z., Is., 1847, 851.

N. syn. = *Gelechia zulu*, Wlsm., Trans. Ent. Soc. Lond., 1881, 261—2.

Gelechia zulu, Wlsm., must be regarded as a synonym of *lamprostoma*, Z. This species appears to be widely distributed; it occurs in Sicily, Spain, Asia Minor, and India, as well as Africa.

Bathurst (Gambia), November, two specimens (*Carter*); Estcourt (Natal), one specimen (*Hutchinson*).

PTOCHEUUSA, *Hein.*

Ptocheuusa? cemiostomella, Z., Hor. Soc. Ent. Ross., XIII., 357—8 (1877).

Zanzibar.

This species was omitted from my previous paper.

POLYHYMNO, *Chamb.*,
Can. Ent., VI., 246—7 (1874).

N. syn. = *COPOCERCIA*, Z., Hor. Soc. Ent. Ross., XIII., 374—5 (1877).

The type of *Polyhymno*, Chamb., is *Polyhymno luteostrigella*, Chamb., a species occurring in the United States. This species is figured Pl. VII., fig. 78.

Copocercia was described by Zeller for the reception of *Copocercia crambinella*, Z., from Ubaque.

I have several specimens of *Polyhymno luteostrigella*, Chamb., and the type of *Copocercia crambinella*, Z.; there can be no doubt that they are congeneric. *Polyhymno* takes precedence.

The neuration is as follows:—

Fore wings 12 veins; 7 and 8 from a common stem, 7 to costa immediately above apex; rest separate, 2 from near angle of cell; 1*b* furcate at base. *Hind wings* 8 veins; 3 and 4 very short, stalked (almost from a point); 6 and 7 stalked, 6 to apical margin, 7 to costa. *Ocelli* present.

[Pl. iv., fig. 32.]

Polyhymno cleodorella, sp. n.

Antennæ brownish. *Palpi* white, tinged with brown on the under side towards the apex. *Head* shining creamy white. *Thorax* brown; tegulæ shining white. *Fore wings* falcate at the apex; brown, with shining white longitudinal streaks and ante-apical costal geminations; a wide central white streak from the base, slightly nearer to the costal than to the dorsal margin, is attenuated beyond the middle, and almost reaches the apical margin below the falcate apex; a more slender line of white on the extreme costal margin from near the base is deflexed about the middle of the costal margin, and runs very obliquely outwards, ending slightly beyond and above the end of the central streak; a third

white line, starting at the basal third below the fold, crosses the fold beyond the middle, and is somewhat dilated towards its apex, opposite to the middle of the apical margin and on a level with the apex of the upper line; this third line gives off a short oblique branch beneath, which commences on and follows the fold to near the anal angle; there are three short outwardly oblique costal streaks immediately before the apex, and two minute ones above the apex itself in the apical cilia; the ends of the cilia are brown at the extreme apex, with a minute spot of blackish scales lying beneath the projected point; cilia on the apical margin white, with a brown line along their base, within which is a slender parallel white one; cilia at the anal angle tinged with brown. *Hind wings* deeply emarginate below the pointed apex; brownish grey; cilia pale greyish brown, faintly touched with whitish below the apex. *Abdomen* brownish. *Legs* brown, touched with whitish spots on the posterior tarsal joints. *Exp. al.* 12 mm.

Hab. Bathurst (Gambia); "Three specimens taken in November and December" (*Carter*).

Type, ♂, Mus. Wlsm.

This species differs but little from the South American *Copocercia crambinella*, Z., except in the arrangement of the costal streaks, and in the more conspicuous third line of white crossing the fold. *Polyhymno luteotactella*, Chamb., is very similar, but distinct.

[Pl. iv., fig. 33.]

Polyhymno ? tenuis, sp. n.

Antennæ with the basal joint elongate, narrow at the base, slightly enlarged towards its apex; white at the base, shaded with brown beyond the basal third. *Palpi* long, slender, recurved; white. *Head and Thorax* shining white. *Fore wings* slender, falcate at the apex; shining white, with the apex, one costal, and two dorsal oblique streaks, greyish brown; the first dorsal streak commences at one-fourth from the base, is short, stout, outwardly oblique, and reaches to the fold; the second dorsal streak commences about the middle of the dorsal margin, is wide at its base, tapering upwards in a very oblique outward direction, crossing the fold, and attenuated to a slender line in the direction of the apex, before which it meets the scarcely less oblique but much shorter costal streak, which commences at about one-third from the apex; beyond and near the costal streak is a greyish brown shade extending to the apex; at the extreme apex is a dark brown spot,

narrowly set in white, to which two slender greyish brown streaks running through the white apical cilia give an eye-like effect; these streaks are bent downward at the apex, and, together with a large patch of brown scales in the subapical cilia, increase the falcate appearance to the wing-tip; they are distinctly visible on the under side; cilia at the anal angle pale brownish grey. *Hind wings* deeply emarginate beneath the much prolonged and slender apex; pale shining grey; cilia faintly brownish tinged, with a distinct brownish fuscous transverse streak running through them at the extreme apex, and very near their outer points. *Abdomen* greyish white. *Legs* white, spotted with brownish. *Exp. al.* 9—10 mm.

Hab. Bathurst (Gambia), three specimens (*Carter*).

Type, ♂, Mus. Wlsm.

This species is perhaps not properly referred to *Polyhymno*, but it is hardly advisable to create a new genus for its reception at present. Its more slender hind wings distinguish it from the typical form of this genus.

Strobisia, *Clem.*

The neuration of this genus is as follows :—

Fore wings 12 veins; 7 and 8 from a common stem; or 11 veins, 7 absent (coincident with 8); 2 and 3 from a curved common stem; rest separate; 1 *b* furcate at base. *Hind wings* 8 veins; 3 and 4 from a point at angle of cell; 6 and 7 from a point; 1 *b* furcate at base.

[Pl. iv., fig. 34; Pl. vii., fig. 79.]

Strobisia metallica, sp. n.

Antennæ pale yellow, spotted with black on the upper side of each joint. *Labial palpi* long, recurved, acuminate; apical joint slightly longer than the second; externally whitish, slightly clouded with grey, especially on the inner side. *Head* greyish fuscous; face shining whitish grey. *Thorax* greyish fuscous, with a brownish tint posteriorly. Under side pale greyish ochreous. *Fore wings* elongate, apex depressed, apical margin scarcely oblique; bronzy brown on basal two-thirds, streaked with fuscous between the metallic markings, which are as follows: first a conspicuous bright steel-blue stripe along the costa from base, depressed and somewhat widened before the middle of the wing, ending above the fold at about half the wing-length; this stripe is

slightly dark-margined throughout; below it is a streak of a similar colour running along the fold from the base, and ending before the middle of the fold closely above a detached elongate spot of the same metallic steel-blue, lying immediately below the fold beyond its middle; at two-thirds the wing-length are two conspicuous lilac metallic spots, the first, costal, reaching less than half-way across the wing, the other, dorsal, almost connected with it, and occupying more than half the width of the wing; these are also distinctly dark-margined; beyond them is a broad bright orange-yellow fascia completely crossing the wing; the apical portion of the wing is fuscous, containing three small metallic spots, parallel with the apical margin, and separated from it by an orange streak; cilia bright steel-blue, separated by a dark line from the orange streak. Under side uniformly smooth, shining greenish grey. *Hind wings* brownish fuscous; cilia grey. Under side shining greenish grey. *Abdomen* brownish fuscous. Under side pale greyish ochreous. *Legs* brownish fuscous, spotted with whitish at the joints; spurs whitish. *Exp. al.* 11 mm.

Hab. Bathurst (Gambia), one specimen among a species of mallow in November (*Carter*).

Type, ♀, Mus. Wlsm.

Brachycrossata, *Hein.*

The genus *Brachycrossata* has 12 veins in the fore wings; 7 and 8 from a common stem; 2 and 3 separate and parallel. There are 8 veins in the hind wings; 3 and 4 from a point at lower angle of cell; 6 and 7 from a point at upper angle of cell.

The genus, as thus defined, is of very limited extent. A considerable number of species occur in the Indian region, and also in Africa, which agree with *Brachycrossata* in all particulars, *except* that veins 2 and 3 of the fore wings rise from a recurved common stem. This difference in neuration may be sufficient to constitute another genus, but for the present it would be rash to give it a name, as it has most probably been already described by Walker without reference to the neural characters. It will be better for the present at least to divide *Brachycrossata* into two sections, thus :—

A. Veins 2 and 3 of the fore wings separate.

B. Veins 2 and 3 of the fore wings arising from a recurved common stem.

BRACHYCROSSATA, Sect. B.

Brachycrossata septella, Z.

Gelechia (*Nothris*) *septella*, Z., Hand. Kong. Svensk. Vet.-Ak., 1852, 108—9.

Bathurst (Gambia), seven specimens (*Carter*); Tangani (Kolumbi Creek, East Africa), August, one specimen (*Jackson*).

[Pl. iv., fig. 35.]

Brachycrossata marginata, sp. n.

Antennæ pale fawn-brown, the basal joint shaded with greyish fuscous. *Palpi* slender; pale fawn-brown on their inner sides and at the end of the apical joint; otherwise pale greyish fuscous. *Head* dull fawn-brown, shaded with greyish fuscous on the face and vertex. *Thorax* dull fawn-brown. *Fore wings* pale fawn-brown; a discal spot before the middle and a band of even width from the apex to the anal angle, but not reaching the costal margin, greyish fuscous; there is also an obscure outwardly oblique costal streak of the same colour before the apex; a very faint indication of a second spot at the end of the cell; cilia pale fawn-brown. Under side pale greyish fuscous. *Hind wings* greyish fuscous, with scarcely paler cilia. *Abdomen* greyish fuscous; the ♂ with a strong ochreous anal tuft. *Exp. al.* 15—17 mm.

Hab. Bathurst (Gambia), five specimens (*Carter*).

Type, ♂ ♀, Mus. Wlsm.

This species agrees with *septella*, Z., in having veins 2 and 3 of the fore wings from a curved common stem.

ODITES, gen. n.

(ὁδίτης = traveller.)

Type. *Odites natalensis*, Wlsm.

[Pl. vii., fig. 80.]

Antennæ simple; basal joint slightly thickened, without pecten. *Labial palpi* slender, recurved; apical joint nearly equal in length to the second joint, sharply acuminate; second joint clothed with appressed scales, which do not project beyond it. *Maxillary palpi* short, meeting over the base of the haustellum. *Haustellum* moderately long, scaled at the base. *Ocelli* obsolete. *Head* slightly roughened. *Fore wings*, apex produced, costal margin scarcely convex, apical margin oblique. *Neuration* 12 veins; 7 and 8 from a common stem enclosing the apex; rest separate; 2

from near angle of cell; an internal vein runs from between 5 and 6 to near base of 11. *Hind wings* trapezoidal, with produced apex and oblique outer margin. *Neuration* 8 veins; 6 and 7 from a common stem; 3 and 4 from a point, or from a common stem, from the lower angle of cell; 5 from or near angle of cell. *Legs:* hind tibiæ clothed with smooth appressed scales.

This genus will probably be found to include a number of forms from various parts of the world, which have hitherto been confounded with Zeller's genus *Cryptolechia*, from which they differ in having veins 6 and 7 of the hind wings from a common stem, instead of separate and nearly parallel, as in his original type of that genus, *Cryptolechia straminella*, from South Africa.

If the name *Cryptolechia* is to be retained for the species originally described as the type of that genus,—and I fail to see how the rule can be departed from in this instance,—any family founded upon an alliance with that genus must at least retain its essential characters, and cannot be established to include the forms in which veins 6 and 7 of the hind wings are not separated, this wide difference in neuration being admitted by all authorities to be of the utmost importance in systematic classification. It follows that Zeller's genus *Cryptolechia* falls into the family *Œcophoridæ* of Meyrick, and annihilates Meyrick's family *Cryptolechidæ*, which was not founded on the typical form. Mr. Meyrick, recognising this, has since recharacterised his family *Cryptolechidæ* under the name *Xyloryctidæ* (Tr. Roy. Soc. South Australia, 1890, 23—4).

I have explained that it is necessary to establish this genus *Odites* on the strength of its neural characters; these exhibit affinities to the family *Gelechidæ* of Heinemann rather than to the *Œcophoridæ* of Meyrick, and moreover distinguish it from all genera yet described, not only in the now suppressed family *Cryptolechidæ*, but even more strongly from the *Œcophoridæ* which may be retained, provided always that they agree with the original typical *Œcophora*, whatever that may be. The error, for which Mr. Meyrick cannot rightly be held responsible, has evidently arisen through the confusion which Zeller created by his attempts to expand and amplify his original work. These attempts (Lin. Ent., IX., 353, *et seq.* (1854), and Hor. Soc. Ent. Ross., XIII.,

258—261 (1877)) had the effect of supplanting his original descriptions, and served rather to obscure the classification than to render it more correct or more easy of comprehension. *Cryptolechia straminella* having been described originally as the type of the genus (Hand. Kongl. Svensk. Vet.-Ak., 1852, 107), he subsequently recharacterised the same genus in an expanded form, making *Depressaria* (*Volucra*) *flava*, from South America, the typical species (Lin. Ent., IX., 353—5 (1854)), incorrectly using the expression "venæ simplices," whereas veins 7 and 8 of the fore wings in that species are from a common stem, and, in fact, the species agrees in all points with *straminella*.

In the Horæ Soc. Ent. Ross., XIII., 259 (1877), he removed *C. straminella* to *Machimia*, retaining *flava* in *Cryptolechia* in defiance of the fact that their characters are identical, and differ from *tentoriferella*, Clem., the type of *Machimia*, in the remoteness, at its origin, of vein 2 from vein 3, which arises at the lower angle of the cell of the fore wings.

With regard to *Stenoma*, which was described by Zeller (Isis, 1839, 195), and included *griseanum*, *litura*, and *bicolor*, alike in structure and neuration; in the Lin. Ent., IX., 391—3 (1854), he identified *griseanum* as *walchiana*, Cram., and founded the genus *Antæotricha* for its reception, together with some allied species. He then removed *litura* and *bicolor* to *Cryptolechia* (presumably *Cryptolechia* No. 2), from which they differ, as from No. 1, in having veins 7 and 8 of the fore wings, as also 6 and 7 of the hind wings, separate, corresponding therefore to his statement "*venæ simplices*," but not to his selected type. In the Horæ Soc. Ent. Ross., XIII., 258—261 (1877), he still further extended his genus *Cryptolechia*, including many modified forms as subgenera. He here resuscitated *Stenoma* (of which, as I have shown, the original type was *griseanum* = *walchiana*), and, having got rid of the other species placed in it in the first instance, he left *litura* as the type at the head of his list, placing *bicolor* in a different subsection, and omitting *griseanum* altogether, although the three are identical in structure.

In pointing out these inconsistencies I have had the great advantage of possessing nearly the whole series of Zeller's generic types, in many cases the actual speci-

mens used by him in writing his descriptions, and where these are not available, specimens of each species from his own collection, named in his handwriting.

It is not surprising that Mr. Meyrick, without the guidance of such valuable material, should have apparently failed to identify the precise form of neuration characteristic of the original genus *Cryptolechia*, which is as follows :—

Fore wings 12 veins; 2 from near lower angle of cell; 7 and 8 from a common stem, the fork enclosing the apex; the rest separate. *Hind wings* 8 veins; 3 and 4 from a point at lower angle of cell; 5 bent over at its origin and somewhat approximate to 4; 6 and 7 separate, almost parallel; 1*b* furcate at base; 8 joined to upper edge of cell by a cross vein. [Pl. VII., fig. 86.]

As touching this question of neuration, I may perhaps here remark that one at least of the characters on which the *Tortricidæ* have hitherto been separated from the *Tineidæ* will be found insufficient. It is well known that in all the *Tortricidæ*, and in many of the *Tineidæ*, vein 1 of the hind wings—that is, the vein nearest to the abdominal margin—is divided into 3 veinlets. De Peyerimhoff, in his 'Étude sur l'organisation extérieure des Tordeuses' (Ann. Soc. Ent. France (ser. 5), VI., 523—590, pl. X.—XII. (1876)), pointed out that the middle veinlet of these three was furcate at the base, and relied upon this character as distinguishing the family from the allied *Tineidæ*. My assistant, Mr. Durrant, has carefully searched for this character in the subfamilies and genera of the *Tineidæ*, and finds it not only in species allied to *Euplocamus*, to *Gelechia*, to *Œcophora*, to *Atychia*, and in Meyrick's *Xyloryctidæ*, but in the typical *Tinea tapetzella*, L., itself; in short, almost wherever he has looked for it.

[Pl. iv., fig. 36.]

♂. *Odites natalensis*, sp. n.

Antennæ brownish. *Palpi* slender, recurved, ochreous, shaded with brown externally to beyond the middle of the second joint. *Head* rough; pale straw-yellow, shaded with brownish around the eyes. *Thorax* pale straw-yellow. *Fore wings* pale straw-yellow to beyond the middle, slightly shaded with brown on the extreme costal margin near the base; beyond the middle is a slightly waved

transverse purplish fuscous line, beyond which the remainder of the wing is entirely shaded with pale brown, or brownish ochreous; cilia scarcely paler than the apical portion of the wing. *Hind wings* very pale greyish ochreous; cilia the same. *Abdomen* grey anal tuft ochreous. *Legs* ochreous. *Exp. al.* 17 mm.

Hab. Estcourt (Natal), six specimens (*Hutchinson*).

Type, ♂ ♀, Mus. Wlsm.

[Pl. v., fig. 37.]

Odites carterella, sp. n.

Antennæ brown at the base, fading to ochreous towards their outer extremities. *Palpi* pale stramineous ochreous, shaded externally with brown on the basal portion of the second joint. *Head* pale stramineous ochreous. *Thorax* dark brown. *Fore wings* shining pale stramineous ochreous, with a very short dark brown basal patch, of which the outer margin is slightly bulged below the middle; cilia the same colour as the wings. *Hind wings* shining whitish, with a faint greyish ochreous tinge; cilia the same. *Abdomen* pale greyish ochreous. *Legs* pale stramineous ochreous. *Exp. al.* 15 mm.

Hab. Bathurst (Gambia), two specimens (*Carter*).

Type, ♂, Mus. Wlsm.

This species is somewhat similar in appearance to *Depressaria culcitella*, H.-S.

Odites atropunctella, Wlsm.

Cryptolechia atropunctella, Wlsm., Trans. Ent. Soc. Lond., 1881, 256.

Estcourt (Natal), one specimen (*Hutchinson*); Cape Colony, one specimen (*Trimen*).

[Pl. v., fig. 38.]

Odites? inconspicua, sp. n.

Antennæ stone-colour. *Palpi* stone-colour, paler on their inner surface. *Head and Thorax* stone-colour. *Fore wings* unicolorous stone-colour; with two small darker stone-coloured spots, one on the middle of the wing, the other in the same line with it on the end of the cell; cilia stone-colour. *Hind wings and cilia* pale

stone-grey. *Abdomen* stone-grey, anal tuft inclining to ochreous. *Legs* stone-grey. *Exp. al.* 13 mm.

Hab. Bathurst (Gambia), one specimen (*Carter*).

Type, ♀, Mus. Wlsm.

This species differs from the typical form in having veins 2 and 3 of the fore wings from a curved common stem.

IDIOPTERYX, gen. n.

(ἴδιος=peculiar, πτέρυξ=a wing.)

Type. *Cryptolechia obliquella*, Wlsm.

[Pl. vii., fig. 81.]

Antennæ ciliate ½; basal joint slightly thickened, without pecten. *Labial palpi* slender, recurved; apical joint nearly as long as the second; second joint clothed with appressed scales, which do not project beyond it. *Maxillary palpi* short, appressed to base of haustellum. *Haustellum* moderately long, scaled at base. *Ocelli* obsolete. *Head* clothed with appressed scales. *Fore wings*, apex produced, costal margin scarcely convex, apical margin oblique. *Neuration* 12 veins; 8 and 9 out of 7, 7 to costa; 3 and 4 out of 2, 2 curved from angle of cell; 5 arising immediately above 2; 1 furcate at base; internal vein from between 5 and 6. *Hind wings* broader than fore wings; apex slightly produced, rounded; outer margin oblique. *Neuration* 8 veins; 6 and 7 from a common stem, 6 to costa, 7 to outer margin; 3 and 4 separate; 5 continued through cell to base; 8 connected with upper margin of cell by a cross-vein near base; 1*b* furcate at base. *Legs:* hind tibiæ thickly clothed with long rough hair-scales.

Idiopteryx obliquella, Wlsm.

Cryptolechia obliquella, Wlsm., Trans. Ent. Soc. Lond., 1881, 254—5.

Estcourt (Natal), two specimens (*Hutchinson*).

LECITHOCERA, *H.-S.*

[Pl. v., fig. 39.]

Lecithocera marginata, sp. n.

Antennæ longer than the fore wings; pale ochreous. *Palpi* recurved; tawny fuscous; the apical joint equal in length to the second joint. *Head and face* tawny fuscous, pale ochreous at the sides and over the eyes. *Thorax* tawny fuscous; tegulæ pale

ochreous. *Fore wings* tawny fuscous, narrowly pale ochreous along the costa to a little beyond the middle; this pale ochreous costal streak is wider at the base, tapering outwards, and there is a fuscous shade on the extreme costal margin at the base; on the dark portion of the wing are two small obscure dark tawny brown spots, one at the upper edge of the cell before the middle, another just beyond the middle at the end of the cell, and equidistant from the costal and dorsal margins; cilia tawny grey. *Hind wings* grey; cilia tawny grey. *Abdomen* tawny grey, with paler anal tuft. *Exp. al.* 14 mm.

Hab. Bathurst (Gambia), one specimen (*Carter*).

Type, ♂, Mus. Wlsm.

[Pl. v., fig. 40.]

Lecithocera flavipalpis, sp. n.

Antennæ thickened, especially towards the middle, shorter than the fore wings; bronze-colour. *Palpi* recurved, twice the length of the head; second joint thickened with closely appressed scales beneath; apical joint slender, acute. *Haustellum* pale ochreous. *Head* bronzy above, orange-yellow at the sides. *Thorax* bronze-colour. *Fore wings* rounded at the apex, the costa scarcely convex near the base, apical margin obliquely convex; deep bronze-colour, without markings (under the lens minutely irrorated with paler scales); cilia shining bronzy. *Hind wings* wide, not emarginate below the slightly rounded apex; paler than the fore wings, bronzy fuscous; cilia the same, rather shining. *Abdomen* dark bronzy fuscous. *Legs* pale ochreous, tinged with bronzy fuscous on the posterior tarsal joints. *Exp. al.* 18 mm.

Hab. Estcourt (Natal), one specimen (*Hutchinson*).

Type, ♀, Mus. Wlsm.

Lecithocera maculata, Wlsm.

Tangani (Kolumbi Creek, East Africa), August, one specimen (*Jackson*).

Timyra, *Wkr.*

[Pl. v., fig. 41; Pl. vii., fig. 83.]

Timyra extranea, sp. n.

Antennæ ochreous; ♂ with a long and conspicuously projecting tuft of greyish scales beneath the outer side of the basal joint; in

the ♀ simple. *Palpi*, ♂, long, recurved, above the crown thickly clothed with long diffuse ochreous hair-like scales on the upper side to the end of the rather stout, pointed apical joint, which is two-thirds the length of the second joint; in the ♀ very slender and naked. *Head* ochreous, thickly tufted above the eyes. *Thorax* ochreous. *Fore wings* ochreous, faintly and delicately shaded with brownish ochreous on the basal and outer thirds of the wing-length; two faintly indicated brownish ochreous discal spots, one at the end of the basal third, the other at the commencement of the outer third, precede and follow the paler central space; cilia ochreous. *Hind wings* delicately fringed with pale hairs on the upper side of the subcostal vein; pale ochreous, narrowly bordered in the ♂ around the apex and apical margin with brownish ochreous; cilia very pale ochreous. *Abdomen* pale brownish ochreous. *Legs* pale ochreous; the joints above the spurs tufted, above the first pair strongly, above the second pair less conspicuously, with brush-like tufts, ochreous, with a bronzy-brown band running across their outer ends. *Exp. al.* 14—15 mm.

Hab. Bathurst (Gambia), Mr. G. T. Carter; three specimens.

Type, ♂ ♀, Mus. Wlsm.

This genus appears to belong properly to the Indian region; it has occurred in Ceylon, and I believe also in India. This species is closely allied to *Timyra phycisella*, Wkr.

Apiletria, *Ld.*

[Pl. v., fig. 42; Pl. vii., fig. 82.]

Apiletria acutipennis, sp. n.

Antennæ simple, two-thirds the length of the fore wings; basal joint elongate, slightly enlarged; dull cinereous. *Palpi* recurved; second joint long, stout, and compactly clothed; apical joint short, slender, acute; whitish cinereous above, sprinkled with dusky scales beneath. *Haustellum* rather short. *Ocelli* obsolete. *Head* smooth, greyish cinereous. *Thorax* stout, smooth; cinereous, anteriorly shaded with dark grey, a whitish line dividing its anterior margin from the head. *Fore wings* lanceolate, acute; costal margin slightly convex, especially towards the base, extreme apex rounded, apical margin very oblique, anal angle obsolete, dorsal margin somewhat bulged near the base; pale cinereous, sparsely sprinkled with elongate fuscous scales, much shaded along the costal margin and on the dorsal margin about the obsolete anal angle with brown and greyish fuscous; with two small fuscous

spots, the first at about half the wing-length, slightly above the middle, the second on the same level beyond it, less than half-way to the apex; cilia greyish cinereous. *Neuration*, vein 2 from near the middle of the wing-length, carried forward above the obsolete anal angle; 7 and 8 from a common stem; rest separate. *Hind wings* elongate, subovate, about the same width as the fore wings, apex rounded, with very long cilia at the abdominal angle; greyish cinereous, with slightly paler cilia, near the base of which runs a darker line. *Neuration* 8 veins; 3 and 4 from a point; 6 and 7 from a common stem. *Abdomen* dilated, acute, brownish grey. *Legs* cinereous, sprinkled with ashy brown. *Exp. al.* 26 mm.

Hab. Bathurst (Gambia), one specimen (*Carter*).

Type, ♂, Mus. Wlsm.

Ypsolophus, *F.*

Ypsolophus siccifolii, Wlsm.

Malvern (Natal), one specimen (*Bowker*).

[Pl. v., fig. 43.]

Ypsolophus gigas, sp. n.

Antennæ, in the ♂, pubescent; brownish bone-colour. *Palpi* with a very long projecting tuft beneath the second joint, almost as long as the long slender apical joint, projecting three times the length of the head beyond it; brownish bone-colour. *Head and Thorax* brownish bone-colour. *Fore wings* with the costa straight, the apex depressed, but rather pointed, the apical margin very oblique; pale bone-brownish, sparsely irrorated with a few darker scales, and with three indistinct darker spots, one on the fold at half its length, and two at the outer extremity of the discal cell, one at its upper, the other at its lower angle; cilia unicolorous with the fore wings. *Neuration*, 4 and 5 closely approximate at the base; 7 and 8 from a common stem, 8 ending above the apex; 2 and 3 separate. *Hind wings* somewhat paler than the fore wings, with an indistinct darker line running along the base of the still paler cilia. *Neuration*, 3 and 4 from the same point; 6 and 7 separate. *Abdomen* the same colour as the hind wings, but with about six transverse darker brown segmental bars, corresponding in colour with the three spots on the fore wings, and with a pale anal tuft. *Exp. al.* 40 mm.

Hab. Estcourt (Natal).

Type, ♂, Mus. Wlsm.

Two specimens of this very remarkable large form of the genus *Ypsolophus* have reached me from Mr. J. M. Hutchinson.

[Pl. v., fig. 44.]

Ypsolophus marmoratus, sp. n.

Antennæ annulated with fuscous and pale greyish ochreous. *Palpi* with a strong triangular tuft on the second joint; greyish fuscous, faintly speckled with ochreous; apical joint dull ochreous, with a fuscous ring before the apex. *Head* greyish fuscous, slightly tinged with ochreous above and in front. *Thorax* dull ochreous, shaded with fuscous. *Fore wings* dull ochreous, mottled and shaded with fuscous; with an ill-defined fuscous spot on the disc about the middle; cilia dull ochreous; veins 2 and 3 stalked. *Hind wings and cilia* grey. *Abdomen* greyish fuscous. *Legs* obscurely mottled with greyish fuscous and pale ochreous. *Exp. al.* 12 mm.

Hab. Bathurst (Gambia), one specimen (*Carter*).

Type, ♂, Mus. Wlsm.

Nothris, *Hb.*

[Pl. v., fig. 46.]

Nothris bryophilella, sp. n.

Antennæ dull white, faintly annulated with fuscous. *Palpi* with the second joint clothed with a long projecting tuft of loose hair-like scales beneath; white, a large black spot on the outer side of the second joint, a very small black spot at the base, and a black band around the middle of the slender apical joint. *Head and Thorax* dull white. *Fore wings* dull white, speckled and blotched with brown; the basal third is irrorated with brown scales, a small fuscous spot near the costa towards the base; immediately beyond the basal third is a large reniform greyish fuscous spot, having the appearance of two roundish contiguous spots, the one reaching over the fold, the other, about the same size, above it; beyond this is a transverse ill-defined band of brown about the middle of the wing, starting from the costal but not attaining to the dorsal margin, wider towards its upper end; this band is followed by another greyish fuscous rounded spot, larger than either of the other two, and lying on the end of the cell; this spot is followed by another large brown patch, occupying the whole apical portion of the wing

from the anal angle along the apical margin, but not quite reaching to the costal margin, where there are three fuscous spots, two small and one larger; a slender shining leaden grey line borders the wing, running from the anal angle along the extreme apical margin, and around the apex along the base of the costal cilia; cilia cinereous, with two darker lines, one along their base, the other along their outer edge. *Hind wings* pale leaden grey; cilia cinereous. *Abdomen* cinereous. *Legs* whitish, the posterior tibiæ with long hairs above, the tarsi spotted with brownish fuscous. *Exp. al.* 13—14 mm.

Hab. Bathurst (Gambia); four specimens taken in November (*Carter*).

Type, ♂, Mus. Wlsm.

This species bears a great resemblance in colour and markings to *Bryophila perla* and *glandifera*.

Megacraspedus, *Z.*

[Pl. v., fig. 47.]

♂ - *Megacraspedus suffusellus*, sp. n.

Antennæ whitish cinereous. *Palpi* whitish, dusted with cinereous, especially on their outer sides along the lower edge of the long projecting tuft from the second joint. *Head and Thorax* whitish, dusted with cinereous. *Fore wings* whitish, dusted with cinereous, the darker dusting forming diffused and by no means distinct spot-like marks below the costa at the basal third, at the end of the cell, and on the fold; cilia dirty whitish, with a cinereous line along their middle, and another before their tips. *Hind wings* very pointed, with margin deeply excised below the apex; shining bone-white; cilia whitish cinereous. *Abdomen* cinereous, barred with dirty whitish. *Legs* whitish cinereous. *Exp. al.* 18 mm.

Hab. Estcourt (Natal), one specimen (*Hutchinson*).

Type, ♂, Mus. Wlsm.

This species may possibly be only a local form of the European *Megacraspedus imparellus*, F. R., but it differs in the absence of distinct spots on the fore wings, and in its generally more dirty and suffused appearance.

ANORTHOSIA, *Clem.*

Anorthosia straminis, Wlsm.

Ypsolophus straminis, Wlsm., Trans. Ent. Soc. Lond., 1881, 266.

Grahamstown (Cape Colony), one specimen (*Druce*); Delagoa Bay (East Africa), one specimen (*Druce*).

This species only differs from *Anorthosia punctiferella*, Clem., the type of the genus, by having 11 veins in the fore wings (7 and 8 being coincident) instead of 12 veins, 7 and 8 from a common stem.

In my former paper I had placed it in the genus *Ysolophus*, which has the same neuration as *Anorthosia*, but the form of the palpi agrees far more closely with the latter genus. The neural characters of *Anorthosia*, as figured in Stainton's edition of Clemens' papers (Tin. N. Am., p. 111), is not precisely correct; veins 3 and 4 of the hind wings should be separated at the base, and the discal cell of both wings is closed, as in other allied genera.

[Pl. v., fig. 45; Pl. vii., fig. 84.]

Anorthosia fracticostella, sp. n.

Antennæ dirty whitish, annulated with brown. *Palpi:* second joint thickly clothed with projecting scales taking a triangular form; externally brown, fringed with whitish at its anterior edge, internally whitish throughout; apical joint very long, slender, erect, slightly recurved, whitish, springing from the apex of the triangular tuft of scales, not, as is usual in *Ypsolophus*, from the base; in this respect it agrees approximately with *Anorthosia*, Clem., rather than with *Ypsolophus*, in which I was at first inclined to place it, although differing somewhat from both in the form of the apical joint. *Head and Thorax* pale olive-green. *Fore wings* with the costa slightly convex near the base, depressed beyond the middle, with a projection before the oblique depressed apex, which is rather obtusely pointed, the apical margin oblique and concave, anal angle obtuse, dorsal margin straight; pale olive-green; a small brown streak along the extreme base of the costal margin, followed by a few brown scales on the convex part of the margin near the basal third of the wing-length; a distinct dark brown narrow line-like spot along the extreme costal margin, scarcely beyond the middle, and a few brown scales in the cilia of the preapical costal projection; just before the middle of the wing

is a reduplicated brown spot, the upper portion of which is almost round; the lower portion is triangular, with the apex pointing outwards; at the lower angle on the fold is a roundish spot of a darker brown; at the end of the cell is an obliquely-placed linear spot of dark brown scales; five small spots of the same colour are at the extreme edge along the apical margin, with three similar spots above the apex, between it and the costal projection; two similar spots also occur on the dorsal margin; cilia very pale greyish brown. Under side unicolorous pale brownish grey. *Hind wings* wider than the fore wings, the outer margin scarcely concave below the apex; pale greyish brown, with scarcely paler cilia. Under side unicolcrous pale brownish grey. *Abdomen* pale greyish brown, inclining to ochreous posteriorly. *Legs* pale greyish ochreous. *Exp. al.* 15—16 mm.

Hab. Accra (Gold Coast), five specimens (*Carter*).

Type, ♂ ♀, Mus. Wlsm.

The form of the palpi of this species is somewhat peculiar; the second joint throws out a brush of hair-like scales on its upper side, with a few on its under side towards the apex; thus the joint itself passes through the brush, and gives off the apical joint at its apex, whereas in *Nothris* and *Ypsolophus* it is tufted beneath, and the apical joint is given off from the base of the tuft. The neuration agrees with that of *Ypsolophus*, but the excavated costal margin distinguishes it in appearance, and the peculiar palpi seem to justify its reception in the genus *Anorthosia*, Clem., which also possesses a slight depression on the costal margin.

Anarsia, *Z.*

[Pl. v., fig. 48.]

Anarsia agricola, sp. n.

Antennæ annulated with hoary and fuscous. *Palpi* with a long triangular tuft projecting beneath the second joint; fuscous on the basal half, hoary beyond, each section clearly defined; apical joint smooth, hoary, a ring near the base, and the whole outer half above fuscous, a pale spot on the outer half beneath. *Head and Thorax* hoary. *Fore wings* hoary; with a large triangular fuscous dorsal patch, sprinkled with hoary scales, extending beyond the middle of the dorsal margin, obtusely terminated below the costa; above its apex is a small, and beyond it a larger elongate costal spot of the same colour, both tending obliquely outwards; the

whole apical portion of the wing, above the anal angle and parallel with the apical margin, is shaded with fuscous scales and patches; cilia greyish fuscous. *Hind wings* semitransparent, shining iron-grey, with a slight lilac iridescence; cilia pale cinereous. *Abdomen* pale cinereous. *Legs* pale cinereous, the posterior tarsi shaded with fuscous, faintly pale spotted. *Exp. al.* 11 mm.

Hab. Estcourt (Natal), two specimens (*Hutchinson*).

Type, ♀, Mus. Wlsm.

One of these specimens is a rather dark variety.

I have a third variety much paler than the type, with less suffusion of dark scaling, and the dorsal patch more conspicuously contrasted with the pale ground colour, but it cannot be regarded as a separate species.

Exp. al. 12 mm.

Hab. Bathurst (Gambia), one specimen (*Carter*).

Type, ♀, Mus. Wlsm.

[Pl. v., fig. 49.]

Anarsia inculta, sp. n.

Antennæ annulated with hoary and greyish fuscous. *Palpi* with a large square tuft, or flattened brush, of projecting scales beneath the second joint; hoary, speckled and shaded externally with greyish fuscous; apical joint whitish, with a broad black band of scales around its middle. *Thorax* hoary, tegulæ tinged with greyish fuscous. *Fore wings* hoary, obliquely tinged with greyish fuscous, and some brownish scales at the base, narrowly on the costal, more widely on the dorsal margin; a triangular tawny fuscous patch occupies the middle of the costal margin, its apex reaching to the dorsal margin; a chestnut-brown spot on the fold, intermixed with groups of raised blackish scales, forms its central portion; the apical part of the wing is also shaded with tawny fuscous scales; cilia tawny fuscous, sprinkled with hoary scales, and becoming paler about the anal angle. *Hind wings* semi-transparent iridescent tawny grey; cilia grey. *Abdomen* iridescent tawny grey; anal tuft ochreous. *Exp. al.* 12—14 mm.

Hab. Bathurst (Gambia), three specimens (*Carter*).

Type, ♂ ♀, Mus. Wlsm.

XYLORYCTINÆ.

IDE, *Chamb.*

[Pl. v., fig. 50.]

♂ – *Ide complanella*, sp. n.

Antennæ ciliated in the ♂; grey. *Palpi* stone-grey, inclining to ochreous towards their apex. *Head and Thorax* greyish stone-colour. *Fore wings* greyish stone-colour, tinged with ochreous along the costal margin throughout their length; cilia shining silvery. *Neuration* 12 veins; all separate; 1*b* furcate at base. *Hind wings* stone-grey, with pale shining cilia. *Neuration* 8 veins; 6 and 7 from a common stem; 3 and 4 from a point; 1*b* furcate at base; 8 joined to upper margin of cell near base by a cross-vein. *Abdomen* greyish stone-colour. *Legs* pale stone-colour. *Exp. al.* 15—16 mm.

Hab. Bathurst (Gambia), two specimens (*Carter*).

Type, ♂ ♀, Mus. Wlsm.

This species agrees with the North American forms in colour and structure, but the cilia are paler and the wings somewhat narrower, and even more like those of *Lithosia* than in others of this Lithosiform genus.

Ide lithosina, Z. (the type of the genus), from the United States, is figured on Pl. VII., fig. 85.

DEPRESSARIANÆ.

DEPRESSARIA, *Hw.*

[Pl. v., fig. 51.]

♂ – *Depressaria inornatella*, sp. n.

Antennæ cinereous, tinged with fuscous towards the base. *Palpi* pale cinereous, sprinkled with fuscous scales externally, and with an ill-defined fuscous band of scales before the apex of the second joint, and a smaller one near the base of the apical joint. *Head* cinereous; face shining whitish. *Thorax* tawny fuscous. *Fore wings* cinereous, much spotted, sprinkled, and suffused with tawny fuscous, without the indication of any characteristic pattern or marking, except a small patch of dark tawny fuscous scales at the extreme base of the dorsal margin, and a dark tawny fuscous elongate oblique spot lying above and beyond the outer and upper angle of the cell, but not reaching to the costal margin; preceding and following this are two obscure costal spots of the same colour, and a smaller one lies obliquely between the preceding costal spot and the base of the elongate spot first mentioned; these, as well as a few other small costal and marginal spots, are very indistinct;

there is also a faint indication of the usual dark spot on the end of the cell; cilia pale cinereous. *Hind wings* pale cinereous; cilia the same, with a faint paler line along their base. *Abdomen* tawny fuscous. *Exp. al.* 17 mm.

Hab. Bathurst (Gambia), one specimen (*Carter*).

Type, ♀, Mus. Wlsm.

This species belongs to Section B of the genus, characterised by having veins 2 and 3 of the fore wings from a common stem.

ŒCOPHORINÆ.

CRYPTOLECHIA, *Z.*

[Pl. vii., fig. 86.]

Cryptolechia straminella, Z.

Caffraria, two specimens (*Boheman, Zell. Coll.*); Zululand, two specimens (*the late Col. Harvey Tower*); Cape Colony, one specimen (*Trimen*).

CACOCHROA, *Hein.*

N. syn.= *TERATOPSIS*, Wlsm., Trans. Ent. Soc Lond., 1881, 259—60.

The genus which I described as *Teratopsis* must sink as a synonym of *Cacochroa*, since it is identical in structure and neuration.

Cacochroa tunicella, Wlsm.

Teratopsis tunicella, Wlsm., Trans. Ent. Soc. Lond., 1881, 260.

Annshaw (Cape Colony), one specimen (*Barrett*).

ANCHINIA, *Hb.*

Anchinia drucella, Wlsm.

Topeutis drucella, Wlsm., Trans. Ent. Soc. Lond., 1881, 268—9.

Malvern (Natal), one specimen (*Bowker*).

I am induced to transfer this species to the genus *Anchinia*, on the ground of the form of the labial palpi, the neuration also agreeing with that of the type.

PHILOBOTA, *Meyr.*

[Pl. v., fig. 52.]

Philobota virgo, sp. n.

Antennæ with a distinct pecten on basal joint; strongly pubescent; white. *Palpi* very long and slender, recurved; white, with a slight greyish tinge. *Head* white, with a slight greyish tinge. *Thorax* white, slightly tinged with grey anteriorly. *Fore wings* with rather straight costa, rounded apex, and oblique apical margin; pure shining white, cilia shining white. Under side grey, cilia white. *Hind wings* whitish grey, with an indistinct greyish line along the base of the white cilia. Under side the same colour as on the upper side, but with no line along the cilia. *Abdomen* grey. *Legs:* the anterior pair with the femora and tibiæ shaded with fuscous, the others white. *Exp. al.* 29 mm.

Hab. Estcourt (Natal), one specimen (*Hutchinson*).

Type, ♂, Mus. Wlsm.

This species differs from *Crytolechia straminella*, Z., in possessing a distinct pecten on the basal joint of the antennæ, and consequently falls into *Philobota*, Meyr.

PSECADIA, *Hb.*

Psecadia sabiella, F. & R.

Psecadia? sabiella, F. & R., Reise Nov. Lp., Pl. CXXXIX., 30 (1875).

Œcophora? sabiella, Wlsm., Trans. Ent. Soc. Lond., 1881, 270—1.

Grahamstown (Cape Colony), one specimen (*Druce*); Estcourt (Natal), one specimen (*Hutchinson*); Delagoa Bay (East Africa), two specimens (*Druce*).

Psecadia circumdatella, Wkr.

Grahamstown (Cape Colony), one specimen (*Druce*).

Psecadia livida, Z.

Delagoa Bay (East Africa), one specimen (*Druce*); Accra (Gold Coast), one specimen (*Carter*).

In my previous paper (Trans. Ent. Soc. Lond., 1881, p. 249), through the printer having omitted to space this species from the preceding, it would appear that I regarded this as a synonym of *circumdatella*. This printer's error is unfortunate, as they are abundantly distinct.

Psecadia oculigera, Mschl., Ver. Z.-b. Ges. Wien., XXXIII., 309, Pl. XVI., 25. (1883).

Caffraria; Grahamstown (Cape Colony), one specimen (*Druce*); Accra (Gold Coast), two specimens (*Carter*).

CNEMIDOLOPHUS, *Wlsm.*

Cnemidolophus lavernellus, Wlsm.

Bathurst (Gambia), one specimen (*Carter*).

GLYPHIPTERYGINÆ.

GLYPHIPTERYX, *Hb.*

[Pl. v., fig. 53.]

Glyphipteryx grapholithoides, sp. n.

Antennæ fuscous. *Palpi and Haustellum* pale ochreous. *Head* smooth; bronzy fuscous. *Thorax* bronzy fuscous. *Fore wings* bronzy fuscous, with a conspicuous whitish ochreous transverse fascia at one-fourth of the wing-length, outwardly angulated in the middle, and attenuated towards the costal and dorsal margins; beyond it are seven slender costal streaks, the first five or six outwardly oblique, all are pale ochreous at their costal extremity, the second, fourth, fifth, and sixth with steel-grey metallic terminations; a coppery metallic upright streak above the anal angle indicates the position of what in the genus *Grapholitha* would be the ocelloid patch; above and beyond the upper end of this is a small coppery metallic spot, opposite to the slight subapical indentation of the outer margin; rather beyond the middle of the dorsal margin is a group of small whitish ochreous spots and scales, reaching as far as the lower extremities of the costal streaklets; cilia whitish, tipped with brown. Under side pale bronzy brownish, with four pale ochreous costal spots before the apex. *Hind wings* brownish fuscous, with scarcely paler cilia. Under side pale bronzy brownish, slightly paler than in the fore wings, with a pale ochreous costal spot, rather larger than those in the fore wings, immediately before the apex. *Abdomen* bronzy fuscous. *Legs* bronzy fuscous; the posterior pair with whitish ochreous spurs and three pale spots on the tarsal joints. *Exp. al.* 10 mm.

Hab. Estcourt (Natal), one specimen (*Hutchinson*).

Type, ♂, Mus. Wlsm.

This species approaches those of the South American genus *Ussara*, Wkr., in appearance, but I am unable to distinguish it from *Glyphipteryx*. It is very nearly

allied to *Gelechia gemmatella*, Wkr., from Sierra Leone [Cat. Lp. Ins. B. M., XXX., 1022. (1864)], but Walker's species has the pale basal band much wider, especially on the dorsal margin; it has also distinct whitish streaks on the sides of the abdomen, and a larger proportion of yellow streaks and spots on the costal and median portions of the wing. It is possible that an extended series of specimens might connect these two forms as varieties of one species.

LAVERNINÆ.

LAVERNA, *Crt.*

[Pl. v., fig. 54.]

Laverna gambiella, sp. n.

Antennæ annulated with whitish ochreous and brownish fuscous. *Palpi* whitish ochreous, touched with brownish on the outer side of the second joint, at the base and near the apex; apical joint two-thirds as long as the second, biannulated with fuscous. *Head and face* whitish ochreous. *Thorax* umber-brown. *Fore wings* pale whitish ochreous; with a distinct outwardly oblique basal patch, wider on the dorsal than on the costal margin, shaded with grey except on its outer third, where it is rich umber-brown; about the middle of the wing is a broad transverse band, of which the middle portion is pale tinged with greyish, the margins being clothed with rich umber-brown scaling, the inner margin outwardly oblique from the costa, the dark scaling rather scattered and diffused, the outer margin strongly angulated inwards at the middle, and with much thicker and closer dark scaling, which extends around the anal angle to the apex, leaving a quadrangular cream-white costal patch above it, extending inwards to one-third from the apex; cilia dark brownish grey. *Hind wings* pale greyish near the base, tinged with brownish beyond; cilia pale brownish grey. *Abdomen* subochreous. *Legs* whitish ochreous, barred and spotted with umber-brown. *Exp. al.* 10—12 mm.

Hab. Bathurst (Gambia), five specimens taken among mallow in November and December (*Carter*); Gambia, nine specimens (*Druce*).

Type, ♂ ♀, Mus. Wlsm.

[Pl. vi., fig. 55.]

Laverna quinquecristata, sp. n.

Antennæ, basal joint somewhat enlarged; brown, spotted with ochreous towards their outer ends. *Palpi* very long, overarching the vertex, apical joint as long as the second; pale ochreous, barred

with brown at the base and near the apex of the second joint, and above the base and before the apex of the apical joint. *Head* smooth; pale ochreous. *Thorax* blackish, with two longitudinal ochreous lines, one each side of the middle. *Fore wings* narrow, tapering outwards from near the base, the costa slightly convex before the middle; coloured with an almost equal admixture of pale ochreous and brown scales; with five distinct raised pale ochreous, smooth, shining tufts, two near the costal and three near the dorsal margin; the outer of the three dorsal tufts is scarcely beyond the half of the wing-length, and the two costal tufts are opposite the spaces between the dorsal ones; there is a slight indication of a few raised scales beyond the third dorsal tuft, but in the specimen before me these do not form a tuft; cilia pale brownish fuscous. *Hind wings* grey; cilia pale brownish fuscous. *Abdomen* brown. *Legs* brown, spotted with pale ochreous. *Exp. al.* 22 mm.

Hab. Estcourt ((Natal), one specimen (*Hutchinson*).

Type, ♀, Mus. Wlsm.

Stagmatophora, *H.-S.*

[Pl. vi., fig. 56.]

— *Stagmatophora fasciata*, sp. n.

Antennæ fuscous, annulated with white, and with white longitudinal streaks on the fuscous basal joint. *Palpi* cream-white, the apical joint dusted with fuscous. *Head* yellow; face white. *Thorax* purplish fuscous. *Fore wings* cream-white, with a basal patch, a broad central fascia and the apex all purplish fuscous, the edges of these markings being tolerably straight, except the inner edge of the central fascia, which is curved outwards, and the inner edge of the apical shade, which extends inwards somewhat along the dorsal margin; cilia pale purplish fuscous, paler at the anal angle. *Hind wings* pale grey; cilia pale purplish. *Abdomen* greyish fuscous. *Legs* cream white, broadly barred with purplish fuscous. *Exp. al.* 9 mm.

Hab. Bathurst (Gambia), four specimens taken from November to December, attached to a species of mallow (*Carter*).

Type, ♂ ♀, Mus. Wlsm.

[Pl. vi., fig. 57.]

Stagmatophora distincta, sp. n.

Antennæ with the elongate basal joint white, a distinct brown spot above beyond its middle, thence entirely white beneath, above alternately spotted and banded to the middle, and banded beyond the middle with brown, the apical joints brown. *Palpi* very slender, recurved, divergent; white touched with brown, especially at the ends of the second and apical joints. *Head* white. *Thorax* stout, brown, fringed with whitish hairs posteriorly. *Fore wings* brown, with a broad, slightly oblique, shining white fascia near the base; two shining white lunate spots beyond the middle, one costal, the other dorsal and slightly further removed from the base; a third larger lunate costo-apical spot reaching to the apical cilia; cilia greyish brown. *Hind wings* shining grey at the base, merging into brown beyond it; cilia brownish grey. *Abdomen* white, with two brown spots at the base; the first large, the other small; a row of three large brown spots along each side, and two brown bands across the two penultimate segments; anal tuft whitish. *Legs* white, banded with brown. *Exp. al.* 11 mm.

Hab. Bathurst (Gambia), one specimen (*Carter*).

Type, ♂, Mus. Wlsm.

The only respect in which this species differs from the typical forms of this genus is in its somewhat wider wings (both fore and hind wings), of which, however, the general pattern of neuration appears to be the same.

PYRODERCES, *Z.*

[Pl. vi., fig. 58.]

Pyroderces simplex, sp. n.

Antennæ whitish fawn-colour, spotted with brownish fuscous above. *Palpi* divergent, recurved, slender; pale fawn-colour, apical joint slightly longer than the second, touched with fuscous above the middle and before its apex. *Haustellum* long, clothed with shining white scales throughout. *Head* fawn-colour; face slightly paler. *Thorax* fawn-colour, paler posteriorly; with a shining metallic iridescence on the under side. *Fore wings* fawn-colour, with a slender outwardly curved transverse whitish streak at one-fourth from the base, preceded by some fuscous scales, which tend to form a basal patch; some shining whitish scales with a lilac iridescence are continued from its lower end, along the dorsal margin to the base, and extend also outwardly along the dorsal margin; on the dorsal margin at about half the wing-length is a

small, outwardly oblique, spot of fuscous scales; at the extreme apex is a dark fuscous spot preceded by a few scattered paler fuscous scales, which are also to be found along the base of the cilia; cilia fawn-colour, inclining to greyish fawn about the anal angle. *Hind wings* grey, with fawn-grey cilia. *Abdomen* cinereous. *Legs* pale fawn, inconspicuously banded with darker fawn. *Exp. al.* 9—11 mm.

Hab. Bathurst (Gambia); two specimens, one bred from a mine in a species of mallow in November, the other taken on the wing in the same month (*Carter*).

Type, ♂ ♀, Mus. Wlsm.

STATHMOPODA, *Stn.*

[Pl. vi., fig. 59.]

Stathmopoda maculata, sp. n.

Antennæ pale fawn. *Palpi* whitish, apical joint slightly tinged with fawn above. *Head* pale fawn above; face whitish. *Thorax* stout; cream-white, except on its extreme anterior margin, which is fawn-colour. *Fore wings* creamy-white, the costal margin narrowly shaded throughout with fawn-brown; a triangular fawn-brown basal patch, of which the apex reaches the dorsal margin; a transverse fascia in the middle, wider on the costal than on the dorsal margin, and a transverse shade occupying the whole apical fourth of the wing (except the extreme apex, which is slightly paler), of which the inner edge is outwardly oblique from the costa to the dorsal margin; all deep fawn-brown, with a very slight purplish hue; cilia pale brownish ochreous. *Hind wings* pale fawn-grey, with pale brownish ochreous cilia. *Abdomen* fawn-brown. *Legs* pale fawn-colour, with deep fawn-brown tufts and tarsal spots. *Exp. al.* 18—20 mm.

Hab. Gambia, two specimens (*Druce*).

Type, ♂ ♀, Mus. Wlsm.

This species has a very distinct appearance despite the general similarity of colouring in *S. crassella*. The thorax is also equally stout, but the ground colour of the fore wings is much paler, and so distinctly mapped out into two elongate patches, enclosed on three sides by the dark fawn-brown transverse shades, as to destroy the somewhat suffused effect. It is also larger, and the sub-apical shade does not point inwards but outwards from the costa. Both *crassella* and *maculata* approach *Stath-*

mopoda pedella, L., but they are much more robust, owing to their wider thorax.

[Pl. vi., fig. 60.]

Stathmopoda crassella, sp. n.

Antennæ strongly ciliated on their inner side; pale fawn. *Palpi* very slender, divergent, recurved; second joint whitish, apical joint fawn-colour. *Haustellum* white. *Head* pale fawn above; face shining white. *Thorax* very stout; fawn-colour; shining white beneath. *Fore wings* fawn-colour, with the extreme costal margin very narrowly tinged with purplish fuscous; a transverse streak very near the base; an oblique transverse shade before the middle, tending outwards towards the dorsal margin, and an oblique transverse shade, at one-fourth from the apex, tending inwards towards the dorsal margin; all purplish fuscous; cilia pale brownish ochreous. *Hind wings* pale fawn-grey, with pale brownish ochreous cilia. *Abdomen* pale fawn-grey; shining white beneath. *Legs* pale fawn, with purplish fuscous tufts at the joints and spurs; shining white beneath. *Exp. al.* 11—14 mm.

Hab. Bathurst (Gambia), five specimens taken at light in November and December (*Carter*); Gambia, five specimens (*Druce*).

Type, ♂ ♀, Mus. Wlsm.

[Pl. vi., fig. 61.]

Stathmopoda divisa, sp. n.

Antennæ pale greyish brown. *Palpi* whitish, tinged with greyish brown on the upper side of the apical joint. *Head* dark greyish brown above; face white. *Thorax* stout; yellow. *Fore wings* yellow to more than one-third of their length; with two small greyish brown costal spots, one at the extreme base very small, the second small, immediately beyond it near the base; a greyish brown shade with straight inner margin occupies the whole outer portion of the wing from before the middle, the yellow ground colour showing only in small ill-defined longitudinal streaks or spots beyond the middle; cilia pale greyish brown. *Hind wings and cilia* pale greyish brown. *Abdomen* greyish brown. *Legs* very pale greyish brown. *Exp. al.* 10 mm.

Hab. Bathurst (Gambia), two specimens (*Carter*).

Type, ♂ ♀, Mus. Wlsm.

This species has much the pattern and colouring of a *Lozostoma*, but it is apparently a true *Stathmopoda*; it

is closely allied to *Gelechia auriferella*, Wkr., from Sierra Leone [Cat. Lp. Ins. B. M., XXX., 1022. (1864)], which differs from it only in having a pale yellow band extending across the wing beyond the middle. The colouring is much the same in both species, although the darker shades are described by Walker as "cupreous," which, perhaps, fairly describes what I have called "greyish brown."

BUTALINÆ.

BUTALIS, *Tr.*

Butalis chloræma, Meyr., Trans. Ent. Soc. Lond, 1887, 279.

Grahamstown (Cape Colony).

[Pl. vi., fig. 62.]

Butalis subeburnea, sp. n.

Antennæ dirty cream-colour at the base, shading to brownish beyond. *Palpi* dirty cream-colour, slightly shaded with brownish grey. *Head* dirty cream-colour. *Thorax* dull cream-colour. *Fore wings* dirty cream-colour, faintly shaded along the costal and dorsal portions, the central part of the wing throughout its length inclining to ivory-white; cilia the same colour as the wings, with a faint brownish tinge about the anal angle. *Hind wings* shining leaden grey; cilia very pale brownish cream-colour. *Abdomen* grey, the anal segments creamy. *Legs* pale. *Exp. al.* 15—17 mm.

Hab. Bathurst (Gambia), two specimens taken at light in November (*Carter*); Gambia, one specimen (*Druce*).

Type, ♀, Mus. Wlsm.

BLASTOBASIS, Z.

[Pl. vi., fig. 63.]

Blastobasis irroratella, sp. n.

Antennæ pale greyish brown; the basal joint fringed below and of the same colour as the face. *Palpi*, apical joint one-third the length of the second, greyish brown; second joint greyish brown, with the apex hoary. *Head and face* hoary, profusely sprinkled with greyish brown scales. *Thorax and tegulæ* hoary, profusely sprinkled with greyish brown. *Fore wings* hoary whitish, profusely sprinkled with greyish brown scales, which are indistinctly grouped in an outwardly oblique dorsal streak before the middle, an elongate

spot on the middle of the disc, and a rounder spot beyond the end of the cell; cilia hoary, very sparsely sprinkled with pale greyish brown. *Hind wings* pale brownish grey; cilia pale cinereous. *Abdomen and legs* pale cinereous. *Exp. al.* 13 mm.

Hab. Bathurst (Gambia), one specimen, November (*Carter*).

Type, ♂, Mus. Wlsm.

ŒDEMATOPODA, Z.

Œdematopoda princeps, Z.

Delagoa Bay (East Africa), two specimens (*Druce*).

ERETMOCERA, Z.

Eretmocera fuscipennis, Z.

Bathurst (Gambia), two specimens (*Carter*).

Eretmocera carteri, Wlsm., Trans. Ent. Soc. Lond., 1889, 28, Pl. VI., 11.

Bathurst (Gambia), three specimens (*Carter*).

Eretmocera derogatella, Wkr.

Zanzibar (East Africa), two specimens (*Jackson*).

Eretmocera dorsistrigata, Wlsm., Trans. Ent. Soc. Lond., 1889, 29, Pl. VI., 13.

Zanzibar (East Africa), two specimens (*Jackson*).

Eretmocera miniata, Wlsm., Trans. Ent. Soc. Lond., 1889, 30—1, Pl. VI., 15.

Zanzibar (East Africa), two specimens (*Jackson*).

Eretmocera scatospila, Z.

Bathurst (Gambia), seventeen specimens, August (*Carter*); Accra (Gold Coast), one specimen (*Carter*).

Eretmocera basistrigata, Wlsm., Trans. Ent. Soc. Lond., 1889, 32—3, Pl. V.

Bathurst (Gambia), two specimens (*Carter*).

Eretmocera lætissima, Z.

Caffraria, two specimens (*Boheman*, *Zell. Coll.*) ; Bathurst (Gambia), seventeen specimens, October—November (*Carter*).

COSMOPTERYGINÆ.

Cosmopteryx, *Hb.*

[Pl. vi., fig. 64.]

Cosmopteryx cognita, sp. n.

Antennæ bronzy brown, the elongate basal joint paler beneath, the five apical joints are white, the next four or five dark bronzy, preceded by a wide, once interrupted, white band. *Palpi* bronzy. *Head* bronzy; face metallic steel-grey. *Thorax* bronzy. *Fore wings* bronzy brown, with a slightly oblique brassy metallic band at half their length, preceding the usual orange fascia; half-way between this band and the base are three silvery streaklets, the upper one oblique from the costa, the middle one above the fold, very short, commencing opposite the apex of the upper one, and reaching about half the length of the lower one, which is stouter and lying below the fold, it commences opposite the base of the middle one and projects beyond it; the orange fascia is margined externally by a very oblique brassy metallic band running inwards from the costal to the dorsal margin, and is separated from it, as from the similar band which precedes it, by a few blackish scales; there is a conspicuous white streak in the costal cilia at the upper end of the outer metallic band and the apical portion of the wing, which is bronzy brown, contains a single small brassy spot at the apex, and a tiny white streak at the extreme end of the apical cilia; cilia bronzy brown. Under side æneous, the costal and terminal white streaks alone visible. *Hind wings and cilia* pale greyish brown. Under side æneous. *Abdomen* brown. *Legs:* posterior tibiæ and tarsi bronzy brown, banded and spotted with white. *Exp. al.* 12 mm.

Hab. Estcourt (Natal), one specimen (*Hutchinson*).

Type, ♂, Mus. Wlsm.

The only species of *Cosmopteryx* hitherto recorded from South Africa is an undescribed species noticed by Stainton (Ent. Week. Int., IX., 32 (1860)).

BATRACHEDRINÆ.

ZARATHRA, *Wkr.*

[Pl. vi., fig. 65.]

Zarathra muricicoma, sp. n.

Antennæ considerably longer than the fore wings; steel-grey; basal joint slightly enlarged, orange ochreous. *Labial palpi* long, slender, divergent, recurved; apical joint longer than second, both smooth; shining ochreous. *Maxillary palpi* short, distinct, white. *Haustellum* rather long. [Walker writes of *Zarathra* "proboscis nulla," but his specimens of *Zarathra pterodactyla* have long tongues.] *Head* posteriorly shining metallic steel-white, above and in front brilliant purple. *Thorax* brownish purple. *Fore wings* very narrow, elongate, brownish purple; with a slender shining steel-white streak along the costal margin before the costal cilia; another almost parallel below it; a conspicuous white spot near the base of the dorsal margin, above which the costal portion of the wing is bright purple; another conspicuous semicircular white spot on the middle of the dorsal margin, above which is a nearly obsolete small whitish costal spot; dorsal cilia with a greenish iridescent hue. *Hind wings* elongate, very narrow, sharply pointed, purplish grey; cilia very long, purplish brown, in some lights with a greenish hue. *Abdomen* shining, iridescent, purplish grey above, with white patches at the sides and beneath, anal segment white. *Legs* [missing.] *Exp. al.* 11½ mm.

Hab. Bathurst (Gambia), two specimens (*Carter*).

Type, ♂, Mus. Wlsm.

GRACILARIANÆ.

GRACILARIA, *Hw.*

[Pl. vi., fig. 66.]

Gracilaria punctulata, sp. n.

Antennæ white beneath, distinctly spotted with brown above. *Palpi* whitish at the base and apex, shaded with umber-brown at the sides and around the middle. *Head* white, with a shining umber-brown bar across the front. *Thorax* whitish. *Fore wings* bone-white, delicately shaded with pale reddish brown along the middle, on and above the fold, this colour becoming more intense about the apex of the wing; on the extreme costa near the base are three or four minute brownish dots; a dark brown spot on the disc, about the middle of the wing, is followed by another nearer to the costal cilia; there is an indication of a third similar spot in

the darker portion of the wing; there are also a few brown scales on the middle of the fold; cilia bone-white, tinged with reddish brown. *Hind wings* grey; cilia very pale reddish brown. *Legs* white, tinged with brown, apparently unspotted. *Exp. al.* 8 mm.

Hab. Estcourt (Natal), one specimen (*Hutchinson*).

Type, ♀, Mus. Wlsm.

[Pl. vi., fig. 67.]

Gracilaria apicistrigata, sp. n.

Antennæ longer than the fore wings; white. *Labial palpi* drooping, divergent, longer than the head; white. *Maxillary palpi* conspicuously projected; white, tipped with brown. *Head* shining white; face very oblique, shining white. *Thorax* shining white; tegulæ brown. *Fore wings* shining white along the dorsal third, brown on the costal two-thirds; the edge of the white dorsal band clearly defined, throwing two obtusely angulated projections into the brown space above it, one before, the other about the anal angle, between which the brown colour nearly reaches the dorsal margin; a blackish elongate dash below the costa, before the apex, contains two or three detached white scales; and at the extreme apex in the middle of the apical cilia an upright short black streak is preceded by a whitish costal spot; cilia at the apex greyish, below it shining white, at and before the anal angle greyish. *Hind wings and cilia* pale brownish grey. *Abdomen* grey. *Legs* greyish, spotted with white on the posterior tarsal joints. *Exp. al.* 7 mm.

Hab. Bathurst (Gambia), one specimen (*Carter*).

Type, ♂, Mus. Wlsm.

[Pl. vi., fig. 68.]

Gracilaria bifasciata, sp. n.

Antennæ pale brown, the basal joint white. *Palpi* white. *Head and face* white. *Thorax* whitish, slightly tinged with pale brownish anteriorly. *Fore wings* pale brown, with two broad white fasciæ, the one before, the other immediately beyond the middle, both dilated to the dorsal margin, the first evenly, the second on the outer side only; beyond the second fascia is a conspicuous triangular white costal spot, preceded by a much smaller one, and followed by the white apical cilia, in which are two brownish fuscous streaklets, one at the base and one in the middle, meeting towards the anal angle, and giving a caudate appearance to the

wing; all the white markings are delicately margined before and behind with lines of brownish fuscous scales; cilia at the anal angle pale greyish fuscous. *Hind wings* pale greyish fuscous; cilia the same. *Abdomen* greyish brown. *Legs* white, banded and spotted with brownish fuscous; tarsal spurs white, with a brownish fuscous spot on each. *Exp. al.* 7 mm.

Hab. Bathurst (Gambia); one specimen bred from mines in a species of mallow, November (*Carter*).

Type, ♂, Mus. Wlsm.

This species belongs to the *scalariella* group.

LYONETIANÆ.

MICROTHAUMA, gen. n.

(μικρός = little, θαῦμα = marvel.)

Type. *Microthauma metallifera*, Wlsm.

[Pl. vii., fig. 87.]

Antennæ with basal joint enlarged and clothed with a conspicuous eye-cap. *Labial palpi* drooping. *Maxillary palpi* obsolete. *Haustellum* present. *Head* tufted; face smooth. *Fore wings* moderately broad, acuminate. *Neuration* 8 veins; 1 forked at base; 2 from near angle of cell; 4 from the cross-vein closing cell; 5 and 6 from a common stem; 7 from beyond middle of cell to costa; 8 to costa before middle. *Hind wings* narrow, elongate, acuminate, tapering from base outwards. *Neuration* 4 veins; 3 and 4 from subcostal vein, 4 to apex; cell open.

This genus differs from *Opostega* in neuration, as well as in the more developed drooping labial palpi.

[Pl. vi., fig. 69.]

♂ *Microthauma metallifera*, sp. n.

Antennæ and eye-caps white. *Palpi* short, depressed; whitish. *Head* white, tufted above; face smooth. *Thorax* white. *Fore wings* shining white; a small indistinct spot of bronzy scales, mixed with golden yellow, on the costa before the middle, has an outwardly oblique inner margin pointing towards the apex of an also outwardly oblique bronzy metallic dorsal streak slightly beyond it, which is connected with a bright patch of golden yellow metallic scales, blending into bronzy brown at their outer and lower extremity; this patch occupies about the middle of the dorsal margin; before it, much nearer to the base, is a smaller spot of dark bronzy brown metallic scales; on the costa beyond

the middle are two very slender oblique and rather indistinct brownish lines pointing towards a bright golden metallic spot on the middle of the outer margin below the apex; above this outer spot is a slender very oblique brownish streak in the costal cilia, depressed at the apex, and giving the wing a distinctly caudate appearance; cilia white, tipped with brownish above the apical streak. *Hind wings* shining white; cilia white. *Abdomen* shining white. *Legs* white; the posterior tarsal joints faintly spotted with brownish. *Exp. al.* 7 mm.

Hab. Estcourt (Natal), one specimen (*Hutchinson*).

Type, ♂, Mus. Wlsm.

NEPTICULINÆ.

LICMOCERA, gen. n.

(λικμός = a winnowing fan, κέρας = a horn.)

Type. *Licmocera lyonetiella*, Wlsm.

[Pl. vii., fig. 88.]

Antennæ as long as the fore wings, simple; the basal joint much developed and clothed with a wide eye-cap. *Ocelli* obsolete. *Maxillary palpi* distinct, small, drooping. *Labial palpi* strongly divergent, slender, recurved, acuminate, evenly clothed throughout with smooth scales; apical joint slightly exceeding the second joint in length. *Haustellum* rather short, naked. *Head and face* smooth. *Fore wings* narrow, elongate, gently tapering to an acute apex, which is not depressed. *Neuration* 10 veins; 6 and 7 from a common stem, 6 to apex; 3 and 4 approximate at their bases; 1 simple at its base. *Hind wings* elongate, acuminate, evenly attenuated from base, dorsal margin slightly convex, cilia very long. *Neuration* 6 veins; 3 and 4 from a point, as are also 5 and 6; cell closed; 2 from before outer third of cell. *Abdomen* slender, two-thirds the length of the fore wings. *Legs* slender, posterior tibiæ clothed above with short hair-like scales.

[Pl. vi., fig. 70.]

Licmocera lyonetiella, sp. n.

Antennæ whitish, tinged with ochreous; with the basal joint widened into an eye-cap, shining white. *Labial palpi* slender, diverging, long and recurved, white. *Maxillary palpi* meeting over the short tongue; white. *Head and face* lustrous white. *Thorax* white. *Fore wings* narrow, elongate, acute, white; with a group of scattered scales before the middle, two dorsal and one

costal spot fawn-brown, also a few fawn-brown scales near the base of the dorsal margin; the dorso-marginal spots are elongate, semi-ovate, the first immediately before the middle, the second at one-fourth from the apex, above and scarcely before this is the smaller oblique costal spot, rather darker in colour than the others; at the extreme apex is a round shining metallic silvery spot, preceded by two or three brownish scales in the base of the white costal cilia; cilia at the apex white, at the anal angle brownish grey. *Hind wings* elongate, evenly attenuated from the base, the dorsal margin slightly convex, together with the cilia pale brownish grey. *Abdomen* narrow, acute, pale, shining brassy yellowish above, whitish at the sides and beneath. *Legs* white. *Exp. al.* 11 mm.

Hab. Bathurst (Gambia), three specimens (*Carter*).

Type, ♂ ♀, Mus. Wlsm.

Oxymachæris, gen. n.

(ὀξύς = sharp, μάχαιρα = knife.)

Type, ♂. *Oxymachæris niveocervina*, Wlsm.

[Pl. vii., fig. 89.]

Antennæ simple, about two-thirds the length of the fore wings; basal joint somewhat enlarged. *Labial palpi* slender, drooping, the apical joint as long as the second. *Maxillary palpi* conspicuous, drooping. *Haustellum* moderate. *Ocelli* obsolete. *Fore wings* lanceolate, acute, the costal and dorsal margins about equally convex. *Neuration* 8 veins; 5 and 6 from a common stem, enclosing the apex; the rest separate; 1 simple. *Hind wings* lanceolate, acute, the costal and dorsal margins about equally convex. *Neuration* 5 veins; 1, 2 and 5 simple; 3 and 4 stalked. *Legs:* posterior tibiæ thinly hairy.

[Pl. vi., fig. 71.]

Oxymachæris niveocervina, sp. n.

Antennæ pale fawn-colour. *Palpi* pale fawn-colour. *Head and face* white. *Thorax* white at the sides, yellowish fawn above. *Fore wings* bright yellowish fawn, with a richer more brownish tinge above the anal angle; a snow-white triangular patch on the middle of the base does not quite reach the costal or dorsal margins; a broad snow-white fascia runs obliquely inwards from the middle of the costal to before the middle of the dorsal margin, its

inner edge scarcely sinuate, its outer edge slightly irregular, with a projection on the fold, between two brownish fawn spots, not detached from the bright fawn portion of the wing beyond it; the white fascia is also projected narrowly along the costal margin to the apex; the costal cilia tipped with fawn-yellow; the cilia on the apical margin wholly fawn-yellow. *Hind wings and cilia* very pale fawn. *Abdomen and legs* pale fawn. *Exp. al.* 12 mm.

Hab. Bathurst (Gambia), one specimen (*Carter*).

Type, ♂, Mus. Wlsm.

Oxymachæris? zulella, Wlsm.

Lithocolletis zulella, Wlsm.

I have no longer access to the type of this species, which is in the Cape Town Museum; but, from my recollection of the shape of the hind wings, and from the figure, I am inclined to believe that it belongs to *Oxymachæris* rather than to *Lithocolletis*.

Micropostega, gen. n. (Lyonetiadæ)

(μικρός = little; *Opostega* (nom. gen).

Type. *Micropostega æneofasciata*, Wlsm.

[Pl. vii., fig. 90.]

Antennæ as long as the fore wings, simple; basal joint enlarged and clothed with a well-developed eye-cap. *Maxillary palpi* short, drooping. *Labial palpi* also drooping, cylindrical. *Head* much flattened, with a strong radiating frontal crest; face smooth. *Fore wings* rather wide, somewhat dilated from the base outwards, the costal margin slightly indented before the apex, apex rounded, cilia long. *Neuration* 5 veins; discal cell open; 2 and 3 from a common stem, as also 3 and 4. *Hind wings* very narrow, elongate, acuminate, evenly attenuated throughout, cilia long. *Neuration* with vein 1 near the base, and a single median vein forked at the apex. *Abdomen* flattened. *Legs* strongly tufted above.

This genus differs from *Opostega* in neuration, as well as in the flattened and highly crested head, and in the somewhat less developed eye-cap.

[Pl. vi., fig. 72.]

Micropostega æneofasciata, sp. n.

Antennæ white; eye-caps shining snow-white. *Head* rough above, white; face smooth, shining, snow-white. *Thorax* white. *Fore wings* white; a broad shining metallic brassy fascia, wider

on the dorsal than on the costal margin, takes a slightly oblique direction outwards and upwards, its edges straight and clearly defined, the outer edge reaching the costa before the middle; beyond it is a very oblique shining brassy costal streaklet, ending in silvery metallic scales; beyond this again is a slender brownish fuscous streaklet in the costal cilia, running to the apex, whence it is slightly depressed and curved in the apical cilia, having below it at the apex a small brownish fuscous spot; a large shining silvery metallic spot lies at the anal angle; cilia white. *Hind wings* shining white; cilia white. *Abdomen* shining white. *Legs* white. *Exp. al.* 6 mm.

Hab. Bathurst (Gambia), two specimens (*Carter*).

Type, ♂, Mus. Wlsm.

CORRECTION.

Since the first part of this paper has gone to press, I find that I have overlooked two species described by Mr. P. C. T. Snellen:—

DICHELIA, *Gn.*

[Pl. iii., fig. 5.]

Dichelia albardana, Snell.

Tortrix (*Dichelia*) *albardana*, Snell., Tijd. v. Ent., XV., 108—9, Pl. VIII., 10. (1872).

Lower Guinea.

I have re-described this species as *Conchylis tricolor* (*ante*, pp. 69—70), having mistaken vein 3 of the fore wings for vein 2. It is not a *Conchylis*, and is probably rightly referred to the genus *Dichelia*, though the stalk to veins 7 and 8 of the fore wings is shorter than in the typical species. *Argyrotoxa viridis*, Wlsm., though resembling this species in appearance, has these veins separate, though somewhat approximate at their bases.

SERICORIS, *Tr.*

Sericoris improbana, Snell.

Grapholitha (*Sericoris*) *improbana*, Snell., Tijd. v. Ent., XV., 109—10, Pl. VIII., 11. (1872); XXV., 234. (1882).

Lower Guinea.

Explanation of Plates III., IV., V., VI. & VII.

PLATE III.
See Explanation facing Pl. III.

PLATE IV.
See Explanation facing Pl. IV.

PLATE V.
See Explanation facing Pl. V.

PLATE VI.
See Explanation facing Pl. VI.

PLATE VII.
See Explanation facing Pl. VII.

Explanation of Plate III.

Fig. 1. ♂ *Cacœcia occidentalis*, Wlsm.
2. ♂ *Argyrotoxa tigrina*, Wlsm.
3. ♂ *A. flavicostana*, Wlsm.
4. ♂ *A. viridis*, Wlsm.
5. ♂ *Dichelia albardana*, Snell.*
6. ♀ *Eudemis spissana*, Z.
7. ♀ *Eccopsis ? nebulana*, Wlsm.
8. ♀ *Penthina brevibasana*, Wlsm.
9. ♂ *Sericoris apicipunctana*, Wlsm.
10. ♂ *Phœcasiophora variabilis*, Wlsm.
11. ♂ *P. basicornis*, Wlsm.
12. ♀ *Phoxopteris oculifera*, Wlsm.
13. ♀ *P. falcata*, Wlsm.
14. ♂ *Coptoloma dimidiata*, Wlsm.
15. ♂ *Dichrorampha excisa*, Wlsm.
16. ♂ *Simæthis flavimaculata*, Wlsm.
17. ♂ *Atychia albiciliata*, Wlsm.
18. ♂ *Phycodes punctata*, Wlsm.

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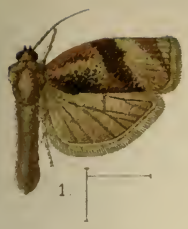
* See correction on p. 131.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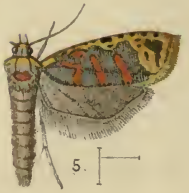
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F.W. Frohawk del. A.J. Wendel lith.

P.W.M. Trap Chromo.

Explanation of Plate IV.

Fig. 19. ♂ *Phyrodes subtriata*, Wlsm.
20. ♀ *P. thoracica*, Wlsm.
21. ♂ *Dismodicus effusc*, Wlsm.
22. ♀ *Antichthonus chalybeellus*, Wlsm.
23. ♂ *Barbacoacordis fasciati*, Wlsm.
24. ♂ *Thasus sobrus*, Wlsm.
25. ♂ *Adela ramulis*, Wlsm.
26. ♂ *Xanthus bicolor*, Wlsm.
27. ♀ *Agonoscelis pubescens*, Wlsm.
28. ♀ *[illegible]*, Wlsm.
29. ♀ *[illegible]*, Wlsm.
30. ♀ *[illegible]*, Wlsm.
31. ♀ *[illegible]*, Wlsm.
32. ♀ *[illegible]*, Wlsm.
33. ♂ *[illegible]*, Wlsm.
34. ♀ *[illegible]*, Wlsm.
35. ♀ *[illegible]*, Wlsm.
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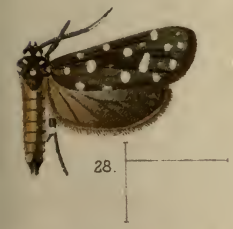
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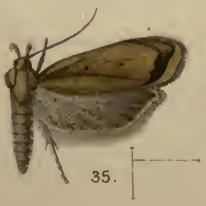
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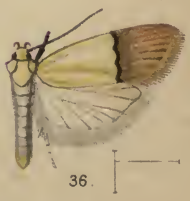
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F.W. Frohawk del. A.J. Wendel lith.

P.W.M. Trap Chromo.

African Micro-Lepidoptera.

Explanation of Plate V.

Fig. 37. ♂ *Odites carterella*, Wlsm.
38. ♀ *O.? inconspicua*, Wlsm.
39. ♂ *Lecithocera marginata*, Wlsm.
40. ♀ *L. flavipalpis*, Wlsm.
41. ♂ *Timyra extranea*, Wlsm.
42. ♂ *Apiletria acutipennis*, Wlsm.
43. ♂ *Ypsolophus gigas*, Wlsm.
44. ♂ *Y. marmoratus*, Wlsm.
45. ♀ *Anorthosia fracticostellus*, Wlsm.
46. ♂ *Nothris bryophilella*, Wlsm.
47. ♂ *Megacraspedus suffusellus*, Wlsm.
48. ♀ *Anarsia agricola*, Wlsm.
49. ♂ *A. inculta*, Wlsm.
50. ♂ *Ide complanella*, Wlsm.
51. ♀ *Depressaria inornatella*, Wlsm,
52. ♂ *Philobota virgo*, Wlsm.
53. ♂ *Glyphipteryx grapholithoides*, Wlsm.
54. ♀ *Laverna gambiella*, Wlsm.

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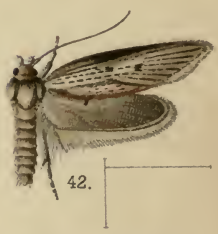
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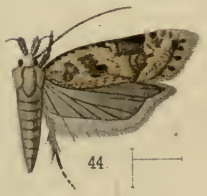
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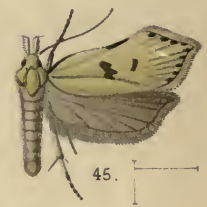
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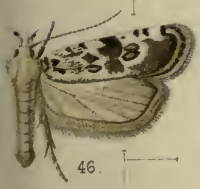
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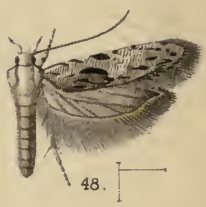
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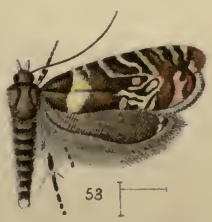
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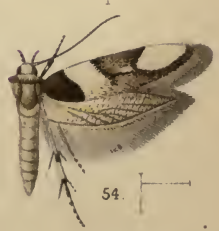
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W. Frohawk del. A.J. Wendel lith.

P.W.M. Trap Chromo.

African Micro-Lepidoptera.

Explanation of Plate VI.

Fig. 55. ♀ *Laverna quinquecristata*, Wlsm.*
56. ♂ *Stagmatophora fasciata*, Wlsm.
57. ♂ *S. distincta*, Wlsm.
58. ♂ *Pyroderces simplex*, Wlsm.
59. ♂ *Stathmopoda maculata*, Wlsm.
60. ♂ *S. crassella*, Wlsm.
61. ♂ *S. divisa*, Wlsm.
62. ♀ *Butalis subeburnea*, Wlsm.
63. ♂ *Blastobasis irroratella*, Wlsm.
64. ♂ *Cosmopteryx cognita*, Wlsm.
65. ♂ *Zarathra muricicoma*, Wlsm.
66. ♀ *Gracilaria punctulata*, Wlsm,
67. ♂ *G. apicistrigata*, Wlsm.
68. ♂ *G. bifasciata*, Wlsm.
69. ♂ *Microthauma metallifera*, Wlsm.
70. ♂ *Licmocera lyonetiella*, Wlsm.
71. ♂ *Oxymachæris niveocervina*, Wlsm.
72. ♂ *Micropostega æneofasciata*, Wlsm.

* This figure is not satisfactory, the shining pale ochreous raised tufts being wrongly represented by the use of gold [Wlsm.]

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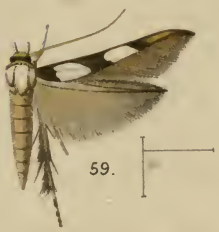
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F.W.Frohawk del. A.J.Wendel lith.

P.W.M.Trap Chromo

African Micro-Lepidoptera.

Explanation of Plate VII.

* † 73. *Setomorpha rutella*, Z., ♀; *a* head, *b* fore wing, *c* hind wing.

* † 74. *Autochthonus chalybiellus*, Wlsm., ♀; *a* head, *b* fore wing, *c* hind wing.

* 75. *Scalidomia horridella*, Wkr., ♂; *a* head, *b* fore wing, *c* hind wing.

* † 76. *Barbaroscardia fasciata*, Wlsm., ♂; *a* head, *b* fore wing, *c* hind wing.

† 77. *Gymnogramma hutchinsoni*, Wlsm., ♂; *a* head, *b*, fore wing, *c* hind wing.

* 78. *Polyhymno luteostrigella*, Chamb., ♂ (United States); *a* head, *b* fore wing, *c* hind wing.

† 79. *Strobisia metallica*, Wlsm., ♂; *a* head, *b* fore wing, *c* hind wing.

* † 80. *Odites natalensis*, Wlsm., ♂; *a* head, *b* fore wing, *c* hind wing.

* 81. *Idiopteryx obliquella*, Wlsm., ♂; *a* head, *b* fore wing, *c* hind wing.

† 82. *Apiletria acutipennis*, Wlsm., ♂; *a* head (side), *b* head (front), *c* palpus, *d* fore wing, *e* hind wing.

† 83. *Timyra extranea*, Wlsm., ♂ ♀; *a* head ♂, *b* palpus ♂, *c* head ♀, *d* antenna ♂, *e* antenna ♀, *f* fore wing, *g* hind wing, *h* hind leg ♂, *i* hind leg ♀.

† 84. *Anorthosia fracticostella*, Wlsm., ♂; *a* head, *b* fore wing, *c* hind wing.

* 85. *Ide lithosina*, Z., ♀ (United States); *a* head, *b* fore wing, *c* hind wing.

* 86. *Cryptolechia straminella*, Z., ♂; *a* head, *b* fore wing, *c* hind wing.

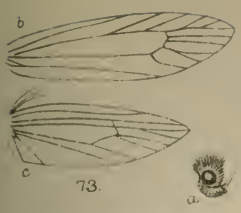
* † 87. *Microthauma metallifera*, Wlsm., ♂; *a* head, *b* fore wing, *c* hind wing.

* † 88. *Licmocera lyonetiella*, Wlsm., ♂; *a* head (side), *b* head (front), *c* fore wing, *d* hind wing.

* † 89. *Oxymachæris niveocervina*, Wlsm., ♂; *a* head (side), *b* head (front), *c* fore wing, *d* hind wing.

* † 90. *Micropostega æneofasciata*, Wlsm., ♂; *a* head (side), *b* head (front), *c* fore wing, *d* hind wing.

* = drawn from type of genus; † = drawn from type of species.
The figures are all enlarged.



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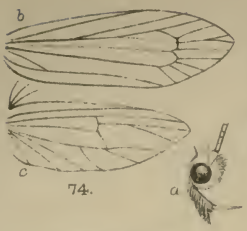

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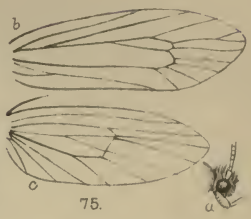

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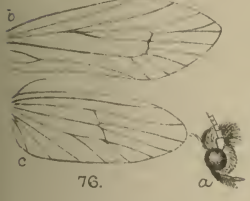

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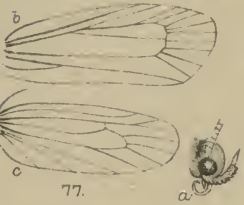

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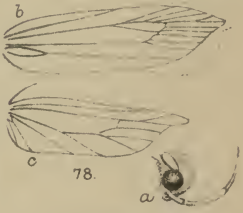

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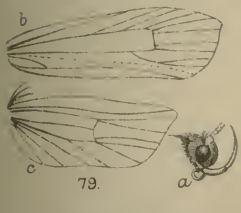

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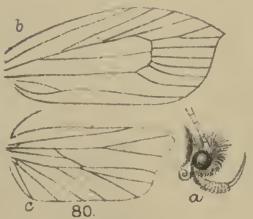

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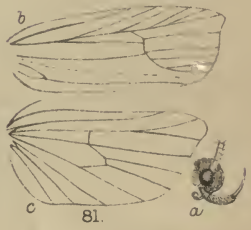

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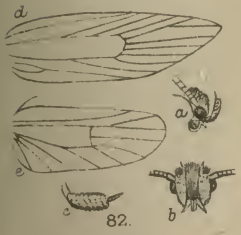

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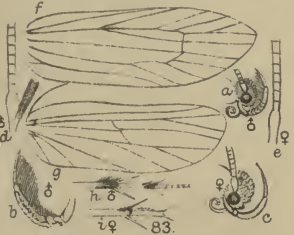

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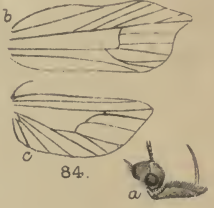

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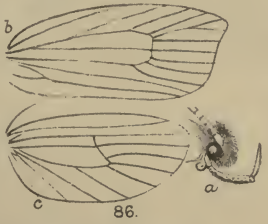

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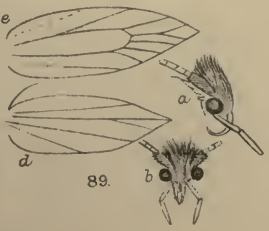

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Ino. Hartley Durrant del. F.W.Frohawk lith. West, Newman, imp.

African Micro-Lepidoptera.

II. *Western Equatorial African Micro-lepidoptera.* By The Right Honble. Lord Walsingham, M.A., LL.D., F.R.S.

[Read Dec. 2nd, 1896.]

Plates II. and III.

I am indebted to the Rev. Dr. W. J. Holland for the opportunity of making known some interesting additions to the African Micro-lepidoptera from a locality hitherto unvisited by any collector of these small but instructive forms. Kangwé, on the Ogowé River (where the Rev. A. C. Good collected the specimens communicated by Dr. Holland), is situated only two miles south of the equator, and the collection, as might be expected, affords several examples of the more brilliant colouring and abnormal structure which distinguishes the equatorial fauna in other regions. The specimens, unfortunately, for the most part are in only moderate condition, but are sufficient to indicate that an experienced collector could find a rich harvest of novelties if he should possess also the qualifications of a sportsman and be indifferent to the aggressive curiosity of the very numerous lions which, I am informed, make night collecting absolutely impossible, and in this instance confined it exclusively to lamp-light on the upper floor.

This small collection still further emphasises the alliances undoubtedly prevalent between the Micro-lepidoptera of the two regions lying on opposite sides of the great dividing barrier of the Atlantic Ocean, especially about those degrees of latitude tending southward from the equator. But, while emphasising this fact, the collection possesses a still greater interest from the evidence which it affords that the African continent forms a strong connecting link with the eastern as well as with the western fauna. Some of the genera included in this paper, such as *Idiothauma* and *Mictopsichia*, have repre-

sentative forms in both. The species placed in the genera *Choreutis*, *Simaethis*, and *Glyphipteryx* have near allies among the Amazonian types, but could be matched almost as closely by specimens from Assam and the Malay Archipelago, while *Tiquadra*, another Brazilian genus (to which a species is here added), is represented in the late Mr. Pryer's collection from Japan. *Nematois parvella*, in the *Adelinæ*, carries us at once to Borneo and Sumatra for a careful comparison to enable us to distinguish it from more than one species equally resplendent; and this is the more remarkable, inasmuch as the *Adelinæ* are but poorly represented in all collections that have hitherto reached us from the African region, and are apparently unrepresented in South America; while the alliance of *Ptilothyris* is with *Adelomorpha*, hitherto only known from a single species occurring in Celebes. *Alucita similalis*, Wkr., affords a parallel instance, strengthened by the absolute similarity of specimens from both localities. These affinities will probably be more strongly recognised when the mass of material in my hands, illustrating this study from the islands of the Malay Archipelago and the adjacent peninsula, as well as from India and the extreme north of Australia, can be thoroughly worked out and described.

My assistant, Mr. Durrant, has drawn and coloured the figures for the plates which illustrate this paper under circumstances of unusual difficulty, owing to the condition of the specimens and the absence of any lengthened series; the extreme interest which attaches to many of these unique forms being the chief incentive in undertaking a task which he has achieved with remarkable success. To make correct drawings of the neural characters from ill-set and frequently contorted specimens, requires not only much labour and patience, but an intimate knowledge of structure which few possess, yet this portion of the work is of the utmost importance in instituting any comparison between what may be regarded as grades of structural variation, chiefly interesting for the light they may throw upon geographical origin and distribution; I must here express my acknowledgment for the pains that he has taken to ensure accurate delineation, as well as for the skill with which he has reproduced the natural colouring.

PTEROPHORIDÆ.

Crocydoscelus, gen. n.

(κροκύς = a piece of wool, σκέλος = a leg.)

Type. *Crocydoscelus ferrugineum*, Wlsm.

Antennæ half the length of the forewings, scarcely pubescent in the ♂, somewhat flattened laterally. *Labial palpi* slender, projecting about the length of the head beyond it; apical joint nearly as long as the second, which is slightly recurved. *Haustellum* well developed. *Head* clothed above with bifid scales. *Thorax* stout, smooth. *Forewings* narrow, bilobed, the fissure commencing at about three-fourths from the base; the anterior lobe as wide as the second, slightly uncate at the apex; second lobe square-ended. *Neuration*, 12 veins; 8 and 9 stalked, 8 to apex; 3 and 4 stalked. *Hindwings* trilobed, the anterior fissure extending to one-half, the lower fissure not reaching to the base; third lobe filiform, with a spatule of black scales in the cilia *at* its apex. *Neuration*, 8 veins; 7 to apex of upper lobe; 5 and 6 short, to fissure; 3 and 4 approximate towards origin, 4 to apex and 3 to angle of second lobe; 1 to apex of third lobe. *Abdomen* widened in the middle, tapering to the anal segments. *Legs*, anterior pair with a wide tuft at the end of the tibiæ; middle pair with a similar tuft; posterior pair with three outspreading fan-like tufts, the first small, near the base of the tibiæ, the other two much larger, arising above the base of the spurs, the inner spurs much longer than the outer, slightly clothed, outer spurs densely clothed.

Crocydoscelus ferrugineum, sp. n. (Pl. II., fig. 1.)

Antennæ greyish fuscous, with a reduplicated white line and white spots above. *Palpi*, *head*, and *thorax* ferruginous. *Forewings* ferruginous, banded across the outer half of the lobes with tawny fuscous and reddish cupreous, with a faint indication of a white transverse streak on each lobe; the apical margin of the anterior lobe is slightly uncate, the cilia blackish along their base, their outer half tawny-grey; on the second lobe the cilia are similarly coloured, but the tawny grey does not extend to the tornus, where they are purplish, and behind it they become pale ferruginous on the dorsum. *Exp. al.*, 15 mm.

Hindwings bright shining ferruginous at the base, shading outwardly to cupreous; cilia purplish fuscous at the apex, shading to tawny grey and pale ferruginous towards the base; hind lobe very slender, with a cupreous black spatule *at* its apex. *Abdomen* dark ferruginous, shading to tawny fuscous at the sides. *Legs*, the anterior and middle pairs pale ferruginous with a rich ferruginous fan-shaped tuft towards the end of the tibiæ; posterior pair thickly clothed to the tarsal joints with dark ferruginous scales, the tibial tufts banded at their base with reddish ferruginous, on their outer half bright ochreous.

Type. ♂. Mus. Wlsm.

Hab. Yoruba—Idanre (Sir G. Carter, 1894); French Congo—Kangwé, Ogowé River (Rev. A. C. Good).

Alucita, L.

Type. *Phalæna* (*Alucita*) *pentadactyla*, L. (Poda, 1761).

alucita, L. (*nec* Meyr.) = aciptilia, Hb. = aciptilus, Z. = *pterophorus (Geoffr.) Meyr.

Alucita similalis, Wkr.

n. syn. = *malacensis*, Z.

Aciptilus similalis, Wkr., Cat. Lep. Ins. B.M., XXX., 949 (1864)[1]; *Aciptilia malacensis*, Z. Hor. Soc. Ent. Ross., XIII., 485-6 (1877)[2].

Hab. Africa—Sierra Leone, 10, I. (Dr. Clements); French Congo—Kangwé, Ogowé River (Rev. A. C. Good); Asia—Malacca[2]; Borneo—Sarawak[1]; Celebes—Macassar, 500 ft. (W. M. Doherty).

This species has not hitherto been recorded from Africa.

Alucita candidalis, Wkr.

Aciptilus candidalis, Wkr., Cat. Lep. Ins. B.M., XXX., 948 (1864)[1]; Wlsm., Tr. Ent. Soc. Lond. 1881, 282[2].

Hab. Sierra Leone[1, 2]; French Congo—Kangwé, Ogowé River (Rev. A. C. Good); Natal—Spring Vale, III.[2]

GELECHIADÆ.

Ptilothyris, gen. n.

(πτίλον = wing, θῠρίς = a window.)

Type. *Ptilothyris purpurea,* Wlsm.

Antennæ shorter than the forewings, somewhat thickened beyond the base : ♂ bipectinate 2½, each pectination strongly biciliate ; ♀ slightly biserrate : basal joint smooth in both sexes. *Maxillary palpi* slender, drooping. *Labial palpi* very long, recurved, smooth ; second and third joints of about equal length, the former somewhat flattened and sabre-shaped, the latter very slender and sharply pointed. *Haustellum* long. *Head* smooth, with side-tufts behind eyes. *Thorax* smooth. *Forewings* elongate, of approximately even width throughout, costa slightly depressed at the base and apex, termen slightly oblique, not sinuate, tornus rounded. *Neuration*, 11 veins (9 absent, coincident with 8) ; 7 and 8 stalked, 7 to costa above apex ; 2, 3 and 4 from a recurved common stem ; 5 from lower angle of cell, remote from 6. *Hindwings* broader than the forewings, scarcely sinuate beneath apex ; ♂ with a semi-transparent patch. *Neuration*, 8 veins ; 6 and 7, as also 3 and 4, from a short stalk ; 5 straight. *Abdomen* slightly flattened behind middle ; ♂ with genital segments densely hairy ; uncus strongly developed. *Legs* smooth, hind tibiæ with elongate slender tarsi and rather long spurs.

Allied to *Adelomorpha* [founded by Snellen (Tijd. v. Ent., XXVIII., 31-2, Pl. III., 1-3, 1885) on the characters of a single species from Celebes] but differing chiefly in the shorter and distinctly bipectinate antennæ, which in *Adelomorpha* are biciliate. The occurrence of this genus in tropical Africa is interesting, especially in connexion with other forms from which probably it may have been derived. *Idiopteryx,* Wlsm., possesses vein 9 in the forewings from the same stem as 7 + 8, while the loss of this vein is characteristic of *Adelomorpha* and *Ptilothyris.* A tendency in the same direction is shown in the hindwings, where 3 and 4, which are separate in *Idiopteryx*, arise from a short stalk in both these genera. It would be interesting to discover a form in which all these stalked veins have become coincident.

Ptilothyris purpurea, sp. n. (Pl. II., fig. 2.)

Antennæ purple on the basal two-thirds, with an ochreous patch behind the basal joint, the outer third white. *Palpi* bright ochreous, the apical joint shaded with purplish fuscous externally. *Head* dark purplish, the face paler; the fringes above the eyes bright ochreous. *Thorax* dark purplish. *Forewings* shining, dark purplish, with a triangular patch of somewhat roughened scales extending nearly across the wing at one-third from the base (this is bright purplish grey in certain lights, but appears brownish fuscous if held in an opposite direction); beyond this at the upper angle of the cell is a smaller similar patch; a slender subochreous line runs along the base of the dark purplish cilia. *Exp. al.* 24 mm. *Hindwings*, ♂, deep purplish fuscous (varying somewhat according to the angle at which the light strikes them); costal margin from the base to two-thirds shining whitish ochreous; a pale, iridescent transparent elongate patch, lying beneath the costal margin beyond the middle, extends nearly across the width of the cell; a tuft of greyish hair-scales at the base of vein 1; cilia purplish tipped with whitish ochreous towards the abdominal angle and somewhat beyond it: ♀ cupreous brown, without the pale patch; cilia purplish grey. *Abdomen* purplish grey, anal tuft pale ochreous; underside shining whitish ochreous. *Legs* bright ochreous; hind tibiæ shaded externally with purplish at the base and between the spurs, the outer spurs and the basal joint of the tarsi also purplish externally.

Type. ♂. Mus. Wlsm.; ♀. Mus. Holland.

Hab. Lagos (♂ ♂, Sir G. Carter); French Congo—Kangwé, Ogowé River (♀ Rev. A. C. Good); three specimens.

Epicharma, gen. n.

(ἐπίχαρμα = an object of malignant joy.)

Type. *Epicharma nothriforme*, Wlsm.

Antennæ (♀) filiform. *Labial palpi* strongly recurved, second joint amply clothed above and below, the scales beneath scarcely longer than those above; apical joint as long as the second, slender, smooth. *Maxillary palpi* short, dependent. *Haustellum* long. *Ocelli* obsolete. *Head* and *thorax* smooth. *Forewings*, costa slightly arched at the base, straight beyond, apex depressed, termen scarcely oblique. *Neuration*, 11 veins (7 and 8 coincident

throughout); 2 and 3 from a recurved common stem, others separate. *Hindwings* slightly broader than the forewings, trapezoidal, costal third of the wing thickly scaled throughout beneath. *Neuration*, 8 veins; 3 and 4 from a point, 6 and 7 closely approximated at base. *Legs*, hind tibiæ thickly clothed, spurs very long.

Allied to *Nothris* and *Ypsolophus*, but differing in the coincidence of veins 7 and 8 of the forewings.

Epicharma nothriformæ, sp. n. (Pl. II., fig. 3.)

Antennæ stone ochreous, faintly annulate. *Palpi*, rich brown externally on the second joint; apical joint and a narrow fringe at the end of the second joint stone-ochreous. *Head* and *thorax* stone-ochreous. *Forewings* pale stone-ochreous with three black spots, one on the middle of the fold, one on the middle of the disc above and beyond it, the third at the end of the cell slightly below the line of the previous one; a very faint shade of greyish brown on the apical portion of the wing is interrupted by a pale waved fasciaform mark which extends from the commencement of the costal cilia, bulging outwards and reverting to the dorsum before the tornus; a few ill-defined greyish brown spots around the apex and termen; cilia pale stone-ochreous. *Exp. al.*, 23 mm. *Hindwings* grey; cilia stone-ochreous with a greyish shade near their base. *Abdomen* greyish. *Legs* stone-ochreous.

Type. ♀.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); unique.

This species has much the appearance of *Nothris verbascella*, Hb., but the neuration is different.

PAPPOPHORUS, gen. n.

(πάππος = thistle down, φέρειν = to bear.)

TYPE. *Pappophorus eurynotus*, Wlsm.

Antennæ (♂), unidentate, basal joint without pecten. *Labial palpi*, second joint porrect, clothed at the end and above and beneath so as to make the joint appear triangular; apical joint slender, recurved, twice the length of the second joint. *Maxillary palpi* short, distinct. *Haustellum* well-developed. *Head* and *thorax* smooth. *Forewings* with the costa conspicuously bulged before

the middle, comparatively straight beyond, but slightly depressed before the apex, termen somewhat oblique, tornus rounded, dorsum straight. *Neuration*, 12 veins ; 7 and 8 stalked, 7 to apex ; 2 and 3 from a recurved stalk, the others separate. *Hindwings* trapezoidal, broader than the forewings, slightly sinuate beneath apex, and concave between abdominal angle and tornus, cilia $\frac{2}{3}$; ♂ with a long narrow naked fold on the upper side between vein 1*b* and 1*c* containing a pencil of long fine expansible hairs. *Neuration*, 6 veins ; 2 absent, 3 and 4 coincident, 5 nearer to 6 than to 3 + 4, 6 and 7 closely approximated, 1*b* with a long and distinct fork. *Abdomen* slender, somewhat flattened. *Legs*, hind tibiæ smooth.

Allied to *Ypsolophus*, F., but differing conspicuously in the hindwings in the absence of vein 2, in the coincidence of veins 3 and 4, in the approximation of 5 to 6, and in the fold containing a long hair-pencil between 1*b* and 1*c*.

Pappophorus eurynotus, sp. n. (Pl. II., fig. 4.)

Antennæ pale fawn, faintly annulate with brown. *Palpi* pale fawn on their inner sides, with a well-marked triangular brown shade externally on the second joint, leaving a pale margin along the upper edge of the projecting tuft ; apical joint dark fuscous. *Head* and *thorax* pale fawn. *Forewings* whitish fawn, shaded with umber-brown along the dorsal half and on the costa beyond the middle ; a small black spot at the extreme base of the costa, another, wedge-shaped, at the end of the discal cell, scarcely above the middle of the wing ; a larger blackish patch (variable in size and shape) half-way between this and the base (its lower portion sometimes forming a black line in the middle of the fold) ; along the outer side of the bulged portion of the costa commences an umber-brown shade, which continues to the apex (shading downwards to chestnut-brown along its middle in some specimens) but interrupted by three slender whitish streaks, the first of which is very oblique, passing across the discal nervules and angulated downwards at a point before the termen, but above the middle of the wing, hence it reverts to the dorsum at the commencement of the dorsal cilia ; the other two small and inconspicuous whitish streaks precede the apex, and the termen and apex are margined by a line of the same colour, containing a series of three or four blackish spots ; cilia chestnut-brown on their basal half, fawn-brown externally. *Exp. al*, 16 mm. *Hindwings* dark umber-brown ; cilia scarcely paler but chestnut-brown at the apex ; ♂ with an expansible white hair-

pencil between veins 1*b* and 1*c*. *Abdomen* shining, cinereous, anal tuft slightly paler. *Legs* brown, tarsi annulated with pale fawn.

Type. ♂. Mus. Wlsm.

Hab. Sierra Leone, 25, IV. (Dr. Clements); French Congo—Kangwé, Ogowé River (Rev. A. C. Good); two specimens.

Ypsolophus, F.

Ypsolophus basistriatus, sp. n. (Pl. III., fig. 13.)

Antennæ pale cinereous, annulated with fawn grey. *Palpi*, second joint with a conspicuously projecting triangular tuft below, apical joint very long, slender; second joint with a triangular chocolate-brown shade externally, apical joint sprinkled with chocolate-brown scales on the under side. *Head* and *thorax* fawn-grey, face slightly paler. *Forewings* with veins 2 and 3 closely approximate throughout, but especially at their base; pale cinereous sprinkled with fawn-grey throughout, a series of small blackish spots around the apex and termen at the base of the cilia, and a conspicuous outwardly-oblique black half-fascia arising from the dorsum near the base, crossing the fold and terminating at the upper end of the cell at about two-thirds the width of the wing; cilia pale cinereous. *Exp. al.*, 16 mm. *Hindwings* greyish; cilia scarcely paler, with a faint subochreous parting line along their base. *Abdomen* greyish. *Legs*, anterior and middle pairs black, tarsi annulated with white, posterior pair pale cinereous.

Type. ♂.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); three specimens.

This species differs from the typical forms of *Ypsolophus* in the approximation of veins 2 and 3 of the forewings.

ŒCOPHORIDÆ.

Orygocera, gen. n.

(ὄρυξ = an antelope, κέρας = a horn.)

Type. ♂. *Orygocera carnicolor*, Wlsm.

Antennæ, ♂ simple. *Labial palpi* very long, evenly recurved, tapering to an acute point, overarching the thorax, apical joint as long

as the second. *Maxillary palpi* short, stout, dependent. *Haustellum* present. *Head* slightly rough above, face smooth. *Thorax* smooth. *Forewings* of approximately even width throughout, apex depressed, somewhat acute, termen slightly concave, oblique, tornus rounded. *Neuration*, 11 veins (vein 11 absent); 2 and 3 from a short stalk (not recurved), 4, 5, and 6 straight; 7 and 8 from a long stalk enclosing the apex, 12 running to the commencement of the costal cilia. *Hindwings* as broad as the forewings, slightly lanceolate at the apex, termen not indented. *Neuration*, 8 veins; 3 and 4 from a point, 5 bent over to near their base; the outer end of the cell forming a deep angle between 5 and 6; 6 and 7 widely separate, almost parallel, 7 nearly coalescing with 8 beyond the upper angle of cell. *Abdomen* not flattened. *Legs*, hind tibiæ clothed with projecting scales above; spurs stout, tarsal joints somewhat coarsely clothed.

Orygocera carnicolor, sp. n. (Pl. II., fig. 5.)

Antennæ yellowish grey. *Palpi* white, sprinkled with greyish scales on the second joint. *Head* white. *Thorax* yellowish grey spotted with flesh-red. *Forewings* sericeous, yellowish grey, dappled with flesh-red, with a small triangular mouse-grey spot a little before the middle, of which the apex is slightly turned outwards, the whole bordered with flesh-red; a suffusion of scattered flesh-red scales extends over the greater portion of the wing-surface, especially along the fold and in a line beneath it; there is a red spot on the middle of the disc, and a second a little beyond it below the costa; a series of three similar spots running obliquely, parallel with the termen, the first immediately below the costa, the second at the upper angle of the cell, and the third, somewhat lunate, at the lower angle of the cell; another smaller one lies near the tornus, and the termen is mottled throughout with flesh-red; the extreme base of the costa is shaded with fuscous; cilia yellowish grey. *Exp. al.*, 19 mm. *Hindwings* greyish, somewhat transparent, with a bluish iridescence between the veins, especially near the abdominal margin; cilia yellowish grey. *Abdomen* greyish. *Hindlegs* whitish cinereous.

Type. ♂.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); unique.

THEATROCOPIA, gen. n.

(θεατροκοπία = a courting of applause.)

TYPE. *Theatrocopia roseoviridis*, Wlsm.

Antennæ ⅔ (♀ simple). *Palpi* very long, strongly recurved to above the middle of the thorax, smooth, apical joint shorter than the second and somewhat more slender. *Maxillary palpi* short. *Haustellum* present. *Head* somewhat roughened above. *Thorax* smooth. *Forewings* elongate, narrow, scarcely widened outwardly, apex depressed, obtuse but not rounded, costa arched, termen oblique, tornus rounded. *Neuration*, 12 veins, 7 and 8 from a common stem enclosing the apex, 2 and 3 from a recurved common stem, the others separate. *Hindwings* as broad as the forewings, apex slightly depressed, obtuse, termen scarcely sinuate. *Neuration*, 8 veins, 6 and 7 separate, parallel, 3 and 4 from a short stalk. *Legs*, hind tibiæ clothed with hairs.

Allied to *Cryptolechia*, Z., but differing in the longer palpi, and in the stalking of 2 and 3 of the forewings.

Theatrocopia roseoviridis, sp. n. (Pl. II., fig. 6.)

Antennæ roseate, faintly annulate. *Palpi* pale olive-grey, tinged with rosy externally, especially on the apical joint. *Head* and *thorax* pale olive-grey, the latter with a strong roseate tinge. *Forewings* elongate, narrow, scarcely widened outwardly, apex depressed, obtuse, but not rounded, costa arched, termen oblique, tornus rounded: rosy pink with a strong olive-green band covering the whole base of the wing (except the extreme basal margin) and extending to beyond the end of the cell, where it is deflected to the tornus, its upper edge being impressed before the middle by the rosy ground-colour which continues between it and the costa, occupying the whole apical portion of the wing, and continued very narrowly to the base; beneath the band is a large semicircular olive-green patch on the middle of the dorsum, bordered by a narrow line of purplish scales; between this and the band the rosy ground-colour, commencing in a narrow line at the base, becomes widened towards the middle of the wing, and still more so towards the tornus, its upper edge, adjacent to the angulated green band, being enriched with bright rosy scales; cilia rosy pink. *Exp. al.*, 19 mm. *Hindwings* olive-grey, cilia the same, slightly tinged with rosy about the apex, and with a narrow paler parting line on the outer half of the margin. *Abdomen* grey. *Legs* pale grey, tarsi slightly rosy.

Type. ♀. (*Paratype*, Mus. Br.)

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good), one specimen; Calabar—Old Calabar, one specimen (British Museum).

Theatrocopia elegans, sp. n. (Pl. III., fig. 14.)

Antennæ pale reddish grey. *Palpi* slender, recurved, second joint very long, apical joint somewhat shorter than the second; pale reddish grey. *Head* and *thorax* pale reddish grey. *Forewings* grass-green, with a dorsal patch before the middle connected with an oblique fascia beyond the middle, which is again connected along the costa and around the tornus, with a patch covering the apical portion—these markings are all reddish grey, with a distinct lilac tinge, and are delicately margined with darker scales; the connexion of the dorsal patch with the central fascia leaves a semicircular patch of the green ground-colour on the middle of the dorsum; cilia reddish grey. *Exp. al.*, 16 mm. *Hindwings* and *cilia* brownish grey. *Abdomen* brownish grey. *Legs* slightly paler than the abdomen.

Type. ♂.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); unique.

PSEUDOPROTASIS, gen. n.

(*Protasis*, nom. gen.)

TYPE. *Pseudoprotasis canariella*, Wlsm.

Antennæ, ♂ biserrate, slender. *Labial palpi* (as in *Protasis*, H.-S.), very long, projecting more than three times the length of the head beyond it, clothed with appressed scales throughout; apical joint very short, scarcely visible; second joint straight and laterally compressed. *Maxillary palpi* short. *Haustellum* present. *Head* and *thorax* smooth. *Forewings* somewhat narrowed at the base, whence the costa is slightly arched, of approximately even width beyond the bend, apex depressed, rounded, termen slightly convex, oblique. *Neuration*, 11 veins (10 missing); 2 and 3 stalked; 7 and 8 stalked, 7 to apex. *Hindwings* as broad as the forewings, apex obtuse, termen evenly rounded. *Neuration*, 8 veins; 3 and 4 stalked, 5 bent over towards their origin; 6 and 7 separate and parallel. *Abdomen* rather slender. *Hindlegs* slender, scarcely clothed.

This genus differs from *Protasis*, H.-S., in its neuration and in the less acute forewings, but greatly resembles it in the form of the palpi, and in general appearance.

—*Pseudoprotasis canariella*, sp. n. (Pl. II., fig. 7.)

Antennæ ochreous. *Palpi* canary-yellow, tinged with ferruginous internally and externally on the upper edge of the second joint; apical joint fuscous. *Head* and *thorax* canary-yellow. *Forewings* straw-yellow, with a slight ferruginous tinge at the extreme base and along the outer half of the costa, also at the apex; cilia pale straw-yellow, slightly tinged with ferruginous. *Exp. al.*, 14 mm. *Hindwings* pale greyish ochreous; cilia the same, but tinged with ferruginous at the apex and along the costa. *Abdomen* ochreous. *Legs* pale greyish ochreous, with some fuscous shading on the hind tibiæ and tarsi.

Type. ♂.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); unique.

Ethmia, Hb.,

(n. syn. = psecadia, Hb.)

Ethmia rhomboidella, sp. n. (Pl. III., fig. 15.)

Antennæ stone-grey. *Palpi* ochreous, apical joint shaded with grey. *Head* and *face* ochreous. *Thorax* mouse-grey, with five black spots (two in front, one in the middle, and two smaller ones behind it). *Forewings* slaty grey, cilia the same; with six black spots (two small ones beneath the costa on the basal fourth, two larger ones on the disc, and two on the fold); of the discal spots one lies at the end of the cell, the other at the middle of the wing; the first of those on the fold is somewhat further removed from the base than the second subcostal spot, the other lies beyond and below the first discal spot, but nearer to it than to the second; thus these six spots form a series of three pairs, in parallel lines whether counted as pairs or in series of three. *Exp. al.*, 28 mm. *Hindwings* stone-grey, having a slight ochreous tinge on the abdominal margin, cilia also inclining to ochreous, except towards apex. [*Abdomen* missing.] *Legs* greyish ochreous.

Type. ♀. Mus. Wlsm.

Hab. Natal—Malvern (Col. Bowker), one specimen; French Congo—Kangwé, Ogowé River (Rev. A. C. Good), two specimens.

The specimens from the Ogowé River have the series of spots in precisely the same places, but they are decidedly of larger size; in all other respects they are similar to the type, and without further evidence cannot be regarded as belonging to a distinct species; these specimens, which are figured, have the abdomen ochreous. *Exp. al.*, 26–27 mm.

HYPONOMEUTIDÆ.

HYPONOMEUTINÆ.

Jobula, Wkr.

Jobula? radiata, sp. n. (Pl. III., fig. 16.)

Antennæ ♂ shortly uniciliate, basal joint amply clothed; olive-grey above, ochreous beneath. *Palpi*, ♂ long, projecting four times the length of the head beyond it, second joint slightly recurved, closely clothed throughout; apical joint short, recurved, slender, also clothed; orange-ochreous on their upper half, olive-grey externally along their middle, cinereous within and beneath: ♀ shorter than in the ♂, and much more recurved; whitish cinereous throughout. *Head* strongly tufted with long projecting hairs in front, face concave; olive-grey above, mixed with pale cinereous, face pale cinereous. *Thorax* smooth, olive-grey with three longitudinal orange-ochreous lines; whitish cinereous beneath. *Forewings*, ♂ dark olive-grey, with orange-ochreous lines marking the interspaces between the veins, the extreme base of the costa narrowly orange-ochreous; a distinct orange-ochreous line, commencing near the base beneath the costa, follows the upper edge of the cell to the middle of the wing-length; this is followed by some spots of the same colour about the upper angle of the cell, diverging obliquely downwards and nearly joining the outer end of a median streak of the same colour, which terminates in the direction of the base at half the length of the cell; there is also a line of the same colour along the fold and some suffusion of orange-ochreous scales beneath it; beyond the end of the cell a series of 9 or 10 separate orange-ochreous lines diverge fan-like between the veins, and are margined, at their outer ends, by a distinct semicircle of the olive-grey ground-colour, which is

followed by an orange-ochreous space, also semicircular, but not attaining the margins, the apical space being dark olive-grey; cilia olive-grey, with an ochreous line along their base: ♀ with the orange-ochreous much less distinct than in the ♂, although the same pattern can be traced. *Exp. al.*, 17–18 mm. *Hindwings* brown, cilia greyish. *Abdomen* brown. *Legs* pale cinereous.

Type. ♂. Mus. Wlsm.; ♀. Mus. Holland.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); two specimens.

This African form differs from any of the Asiatic or Malayan group, so far as known to me, in that vein 8, forming the upper branch of 7 and 8 stalked, terminates at the apex instead of below it. In the palpi of the ♂ it approaches *Jobula semilinea*, Wkr., more nearly than the ordinary forms known under the name of *Tortricomorpha*, but the palpi of the ♀ differ scarcely at all from those of both sexes of the latter genus.

Eremothyris, gen. n.

(ἐρῆμος = destitute of, θυρίς = a window.)

Type. ♂ ♀. *Eremothyris hollandi*, Wlsm.

Antennæ, two-thirds length of forewings, basal joint enlarged, flattened, in ♂ biciliate (1). *Labial palpi* short, somewhat recurved, moderately slender, smooth, apical joint not longer than second. *Maxillary palpi* and *ocelli* absent. *Haustellum* naked. *Head* moderately clothed, not roughened above. *Thorax* smooth. *Forewings* ovate, somewhat widened outwards. *Neuration*, 12 veins: 2 and 3 from a short slightly recurved common stem at lower angle of cell, the others separate; 4 from near origin of 2 + 3; 5 further removed at the base from 4 than from 6; 6 and 7 approximated, 7 to below apex; 8 and 9 approximated, but parallel, 8 to costa; 9 and 10 from upper angles of a small supplementary cell, formed by an internal vein running from between 7 and 8 to about midway between 10 and 11; two internal veins, the upper from between 6 and 7, and the lower from immediately above 5, unite at about half the length of the cell, and form a common stem, which is continued nearly to the base, where it runs into the radius. *Hindwings* slightly broader than the forewings, subovate, the margin evenly rounded, the part occupied by the branches of vein 1

clothed above with long hair-scales, no transparent spot at the base. *Neuration*, 8 veins : 3 and 4 from a point (or short stalk) ; 6 and 7 from a short stalk ; the cell receding upwards and angulated inwards between 5 and 6 + 7, with an internal vein from the angle to the base ; vein 1*b* basally furcate. *Legs* smooth, outer spurs longer than the inner ones.

Eremothyris hollandi, sp. n. (Pl. II., fig. 8.)

Antennæ whitish at the base, tinged with grey beyond. *Palpi* whitish unspotted. *Head*, ♂ whitish : ♀ stone-grey. *Thorax* stone-grey ; tegulæ whitish in the ♂, stone-grey in the ♀. *Forewings* stone-grey, the costa narrowly whitish except at the extreme base ; cilia whitish. Underside greyish, cilia whitish. *Exp. al.*, 22–25 mm. *Hindwings* pale stone-grey (scarcely paler than the forewings); cilia whitish, somewhat tinged with grey. Underside slightly paler than in the forewings. *Abdomen* stone-grey. *Legs* whitish, somewhat tinged with grey.

Type. ♂ ♀. Mus. Wlsm.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good) ; five specimens.

GLYPHIPTERYGINÆ.

Glyphipteryx, Hb.

Glyphipteryx gemmatella, Wkr. (Pl. III., fig. 17.)

Gelechia gemmatella, Wkr., Cat. Lep. Ins. B.M., XXX., 1022 (1864)[1]. *Glyphipteryx* (*Gelechia*) *gemmatella*, Wlsm., Tr. Ent. Soc. Lond. 1891, 116–7[2].

Antennæ brownish fuscous, faintly annulated. *Palpi* porrect, slightly recurved, apical joint very acute, shorter than the second ; second joint with a divided fringe beneath, consisting of three or four black tufts separated from each other by white lines. *Head* leaden grey. *Thorax* greyish fuscous, with a white spot posteriorly; white on the underside. *Forewings* bronzy brown mixed with fuscous shading, especially towards the base, a large triangular straw-white dorsal patch near the base, its apex ending in a small straight whitish costal streak at one-fifth from the base, its outer edge slightly convex ; this is followed by two straight chalybeous metallic streaks, the first at one-third from the base, the second scarcely beyond the middle ; a third slightly oblique towards the apex is preceded by a small white costal dot half-way between it

and the preceding streak, and followed by a larger white costal spot immediately before the apex, a few white scales at the costal extremity of the third chalybeous streak ; from the dorsum arises a rather broad straight chalybeous streak immediately before the middle, which terminates on the disc between the lower extremities of the first and second costal streaks; this is followed by a conspicuous black patch at the tornus, margined by a shorter chalybeous streak at its commencement, and containing two conspicuous shining metallic spots, with some golden metallic scales along the margin; above this patch is a series of five radiating golden ochreous lines following the nervules, but not extending to the termen; termen indented below the apex, the apex itself being somewhat depressed; cilia shining metallic about the tornus (but too much worn above it to admit of description). *Exp. al.*, 12 mm. *Hindwings* purplish fuscous, with cilia the same colour but inclining to greyish about the abdominal angle. Underside with the cilia distinctly spotted with white along the outer margin. *Abdomen* leaden grey. Underside white, anal segments fuscous. *Legs* greyish fuscous, annulated with white on the tarsal joints, spurs inclining to ochreous.

Hab. Sierra Leone[1,2]. French Congo—Kangwé, Ogowé River (Rev. A. C. Good).

Allied to *Glyphipteryx grapholithoides*, Wlsm., from Natal. These species belong to the group to which Walker gave the generic name *Ussara*, when describing *decoratella* from the Amazons. I am unable to discover any structural character by which it can be separated from *Glyphipteryx*. [When the above description was written I had not recognised the species, but as it supplements Walker's in several particulars I am not willing to suppress it.]

Idiothauma, gen. n.

(ἴδιος = distinct, θαῦμα = a wonder.)

Type. *Idiothauma africanum*, Wlsm.

Antennæ, ♂ bifasciculate (at least 2), without pecten. *Labial palpi* recurved, appressed to face ; apical joint blunt, shorter than second. *Maxillary palpi* absent. *Haustellum* short. *Ocelli* present. *Head* and *thorax* smooth. *Forewings* somewhat triangular, narrow at the base, widened outwardly, costa straight or slightly depressed towards apex, dorsum straight, termen oblique,

indented above vein 5. *Neuration*, 12 veins, all separate ; 2 from commencement of outer third of cell, 3 and 4 somewhat straight, 8 to termen. *Hindwings* broader than the forewings (or at least equal to the extreme width outwardly), evenly rounded. *Neuration*, 8 veins ; 3 and 4 from a point or short stalk, 6 and 7 from a short stalk, 8 free, 5 straight ; outer edge of cell somewhat receding upwards. *Legs*, hind tibiæ slightly hairy.

Allied to *Hilarographa*, Z., but differing in vein 8 of the forewings running to the termen instead of to the costa, in the much straighter costa and in the conspicuous indentation between veins 5 and 6.

Idiothauma africanum, sp. n. (Pl. II., fig. 9.)

Antennæ ochreous with greyish cilia. *Palpi* pale straw-colour. *Head* brownish fuscous, with some pale straw-coloured scales. *Thorax* brownish fuscous, streaked at the sides with pale straw-colour. *Forewings* reddish orange, streaked with brownish fuscous, dark fuscous, pale straw-colour and metallic lilac ; the ground-colour of the basal third is brownish fuscous, in which are two conspicuous pale straw-coloured marks, the one from the middle of the base depressed along the fold, thence tending upwards and attenuated to a sharp point below the costa at about one-third the wing length ; the second at one-third of the dorsum, cuneiform, oblique, and ending in a point at about the middle of the discal cell immediately beyond the apex of the basal streak already described ; separated from the outer edge of this mark, by a narrow line of brownish fuscous, is a rather narrow band of shining cupreous scales illuminating the orange ground-colour of this portion of the wing, this is entirely narrowly margined with brownish fuscous, its upper extremity being above the middle of the wing, but not reaching to the upper edge of the discal cell, and therefore terminating before the apex of the pale straw-coloured wedge ; a dark fuscous shade leaves the dorsum at two-thirds from the base, tending outwards to the end of the cell above its middle, its upper portion contains a short orange streak and its extremity is contiguous with a shade of a similar colour which approaches the lower half of the termen extending to the tornus ; between these two shades a short cuneiform spot of brilliant cupreous scales leaves the dorsum immediately before the tornus, occupying the central portion of the orange patch of which they form the boundaries ; along the costa are seven pale straw-coloured streaks,

the first two within the basal third very oblique, the third and fourth within the middle third also oblique, the fifth straight at the commencement of the apical third, and the sixth and seventh (also straight and more than twice the length of the others) immediately before the apex—all these streaks are narrowly margined on both sides with dark fuscous and with a few lilac-metallic scales at the lower extremities of the third and fifth streaks; in the orange space between the fifth and sixth costal streaks is an isolated, oblique, bright metallic lilac patch similarly margined; cilia purplish fuscous, interrupted at the upper third of the outer margin by a small wedge-shaped pale straw-coloured spot. Underside dirty ochreous all the pale straw-coloured streaks being distinctly white. *Exp. al.*, ♂ 14 mm.; ♀ 15–20 mm. *Hindwings* bronzy ochreous, shaded with brownish fuscous around their margins; cilia slightly paler, with an ill-defined darker parting line along their base. *Abdomen* bronzy ochreous, whitish cinereous beneath. *Legs* cinereous with bronzy brown spots and shading on the hind tibiæ and tarsal joints.

Type. ♂ ♀.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); three specimens.

[*Hilarographa* was proposed by Zeller, Hor. Soc. Ent. Ross., XIII., 186–7 (1877) as a subdivision of his existing genus *Setiostoma*, and having as its types *swederiana*, Stoll, and *ribbei*, Z.

Meyrick, Trans. Ent. Soc. Lond., 1886, p. 286, raised *Hilarographa* to generic rank, giving a careful structural description, and adding a new species, *zapyra* from New Guinea, the type of which is in my collection, and it was from this specimen, differing in neuration from *swederiana*, Stoll, that his generic description was probably taken, as it conforms in every particular, and no reference was made to either of Zeller's original types.

I have not been able to examine the neuration of *ribbei*, Z. (the type of which is in Staudinger's cabinet), to see whether it agrees in structure with *swederiana*, Stoll; but of this I have specimens, and I select it as the type of *Hilarographa*, Z., with the following generic characters:—

Hilarographa, Z.

setiostoma (hilarographa), Z., Hor. Soc. Ent. Ross., XIII., 186–7 (1877).

Type. *Phalæna Tortrix swederiana*, Stoll, (Wlsm.).

Antennæ hardly half the length of the forewings, stout, simple, without pecten. *Labial palpi* recurved, appressed to face, closely scaled; apical joint blunt, shorter than second. *Maxillary palpi* absent. *Haustellum* short. *Ocelli* distinct. *Head* with loosely appressed hairs. *Thorax* smooth. *Forewings* narrow at the base, widened outwardly; costa slightly arched, termen scarcely oblique, slightly sinuate below the apex and convex beneath. *Neuration*, 12 veins, all separate; 2 from commencement of outer third of cell, 8 to costa. *Hindwings* broader than the forewings, costa arched, termen evenly convex, not sinuate, cilia short. *Neuration*, 8 veins; 3 and 4 connate (or from a short stalk), 6 and 7 from a short stalk, 8 free. *Abdomen* slender, tapering, in ♀ terminating in a bifid extruded chitinous process (having much the appearance of the anal claspers of the ♂), this is armed with short scattered bristles, and is either the ovipositor itself or the sheath of the same, a point I am unable to determine from the specimen before me. *Legs* smooth, the first pair of spurs on the hind tibiæ longer than the second.

Thaumatographa, n. n.

(θαῦμα = a wonder, γράφω = I write).

= hilarographa, Meyr., Tr. Ent. Soc. Lond., 1886, 286 (*nec* Z.).

Type. *Hilarographa zapyra*, Meyr.

I propose the above name for Meyrick's genus *Hilarographa*, which differs from Zeller's in having veins 7 and 8 of the forewings stalked.]

Choreutis, Hb.

Choreutis octogemmifera, sp. n. (Pl. III., fig. 18.)

Antennæ whitish beneath, barred with fuscous above. *Palpi* white tipped with fuscous, the second joint with three diverging points of hair-like scales beneath, mixed white and fuscous. *Head* greyish fuscous, with a slender white line along each side. *Thorax*

greyish fuscous, with two slender white lines on each side of the anterior half. *Forewings* greyish fuscous, mottled and banded with white, with a row of eight bright metallic spots around the apex and termen, each set in an elongate dark fuscous shade; the white markings on the forewings are thus distributed:—a narrow fascia near the base, running obliquely outwards from the dorsum across the fold, angulated a little below the costa and reverting to it; a second a little beyond, rather straighter, reaches only halfway across the wing from the costa; beyond the middle of the wing is a large patch spreading from the outer end of the cell to the costa and dorsum, much interrupted and suffused by greyish fuscous scales, but becoming distinct on the margins at the commencement of the costal cilia and before the commencement of the dorsal cilia; cilia greyish fuscous, with a white spot below the apex and another below the tornus, a slight parting line along their base. *Exp. al.*, 12 mm. *Hindwings* brownish fuscous, with a white patch on the outer half of the cell, and an oblique white streak reverting from beyond this to the middle of the termen; above and beyond the upper extremity of the second streak is a brilliant metallic lilac streak tapering to its lower extremity, where it almost reaches the margin; a third obscurely whitish streak, from near the abdominal angle, tends outwards and upwards, terminating above the lower extremity of the more conspicuous white streak beyond it; cilia greyish fuscous with three conspicuous white interruptions, the first at the apex, the other two corresponding with the extremities of the lilac streak and the largest white streak respectively. *Abdomen* brownish fuscous. *Legs* white, annulated with brownish fuscous.

Type. ♂.

Hab. Yoruba—Idanre (Sir G. Carter); French Congo—Kangwé, Ogowé River (Rev. A. C. Good); three specimens.

All the white and metallic markings of both fore and hindwings are reproduced on the underside, where they are even more strongly apparent than above.

Simaethis, Leach.

Simaethis equatoris, sp. n. (Pl. III., fig. 19.)

Antennæ slightly ciliate; greyish fuscous, annulated with whitish. *Palpi* very short, not projecting beyond the head; cinereous, with three narrow greyish fuscous bands beneath. *Head* ochreous, mixed

with greyish fuscous. *Thorax* brownish fuscous. *Forewings* narrow at the base, much widened outwardly, apex rounded, termen somewhat oblique ; brownish fuscous to beyond the middle, thence orange-ochreous; the outer edge of the brownish fuscous portion broken into projecting points, one tending upwards towards the apex from the upper end of the cell, another shorter one tending outwards from the lower angle of the cell, a narrow band of brownish fuscous runs around the apex and termen to the tornus with a slight inward projection below the apex (but in some specimens this is reduced to a slight shade) preceding a more or less distinct brownish line along the base of the pale greyish cilia ; a pale greyish speckled transverse fascia crosses the darker portion of the wing at one-third from the base, and is somewhat wider on its lower than on its upper half ; a few whitish scales are visible at three points on the costa, the first at the upper extremity of the transverse fascia, the second at the outer edge of the brown portion of the wing, the third immediately before the apex, and these are slightly reproduced on the brownish fuscous underside. *Exp. al.*, 14 mm. *Hindwings* brown, with pale greyish cilia, a narrow brown parting line running through them near their base ; a slight pale marking occurs near the abdominal angle, within the margin, extending outwards parallel with it nearly to one-half. *Abdomen*, brownish fuscous. *Legs* brownish, with several conspicuous whitish bands on the hind tibiæ and tarsi, spurs whitish.

Type. ♂ ♀.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good) ; three specimens.

Simaethis flavimaculata, Wlsm.

Simaethis flavimaculata, Wlsm., Tr. Ent. Soc. Lond., 1891, 77. Pl. III., 16[1].

Hab. French Congo—Ogowé River; one specimen. Zanzibar[1].

This specimen exhibits some slight variation from the type, in that the first orange spot reaches to the costal margin, the two outer spots narrowly touching each other at their outer edge.

Mictopsichia, Hb.

Mictopsichia argus, sp. n. (Pl. III., fig. 20.)

Antennæ dull ferruginous. *Palpi* short, recurved, scarcely projecting beyond the head, apical joint shorter and more slender than

the second ; pale ferruginous. *Head* dull ferruginous. *Thorax* greyish, with three inconspicuous ferruginous longitudinal streaks and a reddish orange patch posteriorly. *Forewings* dull ferruginous, paler on the dorsal than on the costal half, much speckled and shaded with greyish fuscous scales and streaked with metallic purplish grey, a triocellated dorsal patch before the tornus ; the dorsal half of the wing from near the base to the tornus is minutely reticulated with black wavy lines, and these are concentrated into a somewhat circular patch almost touching the dorsum before the tornus, in which are spots of the ferruginous (almost ochreous) ground-colour, and three or four larger spots of metallic bluish grey, all dark-margined, the more conspicuous of these bluish grey spots lying along its outer edge ; from the base, immediately below the costa, runs a bluish grey streak which is deflected at one-third the wing-length, terminating on the cell ; beneath it from the base arises a shorter streak of the same colour, almost coterminous with a similar streak arising from near the base of the dorsum, the space between them being brownish ; on the outer half of the wing are two conspicuous blue-grey streaks, the first arising below the costa near its middle and tending outwards and downwards towards the tornus, but ending between the ocellated patch and the termen at one-third the wing-breadth, the second commencing on the costa at four-fifths, less oblique than the first, and ending opposite to the middle of the termen above and beyond the apex of the first streak ; between them lies a small spot of the same colour below the costa, and beyond the outer one immediately before the apex is a similar spot almost touching the costa ; several small brownish fuscous spots are visible along the basal two-thirds of the costa, and a brownish shade precedes each of the blue-grey streaks and extends along the termen to the apex (which is less falcate than in the South American representatives of this genus) ; cilia brownish grey with a ferruginous parting line near their base. *Exp al.*, 19 mm. *Hindwings* reddish orange, speckled around the margins and apex with greyish fuscous, and having a conspicuous ocelloid black patch within the middle of the termen, divided by streaks of the ground-colour, and illuminated along its lower edge by metallic steel-grey spots ; cilia greyish ochreous, spotted with blackish, with a reddish orange parting line along their base. *Abdomen* orange-ochreous. *Legs* pale orange-ochreous, hind tarsal joints spotted with black and whitish.

Type. ♂ ♀.

Hab. French Congo—Kangwé, Ogowé River ; three specimens.

It may be necessary ultimately to distinguish this species, and its allies, from *Mictopsichia*, on the ground of the somewhat longer and more recurved palpi, and the less falcate apex of the forewings, but the same form occurs in Mexico and the Malay Archipelago.

TORTRICIDÆ.

OLETHREUTINÆ.

= *OLETHREUTÆ*, Hb., = *GRAPHOLITHINÆ*, Fern.
= *EPIBLEMIDÆ*, Meyr.

Eccopsis, Z.

Eccopsis præcedens, sp. n. (Pl. III., fig. 21.)

Antennæ stout and densely but shortly pubescent in ♂; ochreous. *Palpi* projecting the length of the head beyond it, moderately clothed; cinereous. *Head* cinereous, mixed with dark umber. *Thorax* cinereous. *Forewings*, costa arched near the base, depressed in the middle, thence again convex and depressed towards the apex, termen oblique, slightly convex; pale cinereous, mottled and blotched with dark umber tending to blackish along the costa, and with a series of spots and blotches; five costal spots on the basal third are followed by a median triangular shade interrupted a little beyond its middle, this is followed by another narrow costal spot, which is succeeded by a shade extending to the apex; beneath this apical shade is an oblique band angulated at its upper extremity and reaching the termen below the middle, the space between it and the apex shining chalybeous; a few shining chalybeous scales scattered over the surface of the wing, especially on its outer half, the greater part of the wing-surface is also streaked and dotted with dark umber scales somewhat evenly distributed; cilia cinereous, slightly shining on their outer half. Underside brownish. *Exp. al.*, 22 mm. *Hindwings* with the abdominal angle strongly lobed, the abdominal margin deeply indented and with a small hanging appendage near its base (somewhat more strongly developed than in *Eccopsis wahlbergiana*, Z.); coppery-brown, cilia greyish with a slight parting shade along their middle. Underside brownish ochreous. *Abdomen* cinereous, much shaded with dark umber, anal tuft coppery-brown. *Legs* worn, apparently cinereous, tarsal joints broadly banded with dark umber.

Type. ♂.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); two specimens.

In comparing this species with the better-known *Eccopsis wahlbergiana*, Z., it may be distinguished by the somewhat longer palpi, by the stronger costal marks on the basal half of the forewings, by the less conspicuous dorsal shading and by the hindwings being of a much lighter and more cupreous colour, as well as by its somewhat larger size.

Ancylis, Hb.

(= phoxopteris, Tr.)

Ancylis argenticiliana, sp. n. (Pl. III., fig. 22.)

Antennæ (♂) rather stout, simple; stone-grey. *Palpi* very closely appressed to the face, the short apical joint scarcely projecting beyond it; stone-grey. *Head* stone-grey. *Thorax* pale olive-grey. *Forewings*, costa evenly arched, apical margin strongly indented on vein 6; pale olive-grey, with a few inconspicuous darker mottlings indicating a pale basal patch at one-third, its irregular outer edge slightly oblique, nearer to the base on the costa than on the dorsum; from the middle of the costa a slender umber-brown line (slightly convex outwardly below the middle of the wing) extends obliquely to the dorsum within the tornus; this is followed by a paler space extending to the termen, showing a silvery sheen with a few slender lines of black scales following the nervules across it in the direction of the apex, this space is narrowed towards its costal extremity by an oblique brown line extending from the indentation on the termen inwards and upwards to the costa and along the base of the cilia both upwards and downwards; above it the costa before the apex is chestnut-brown, with three or four slender oblique silvery-white streaks, a faint indication of smaller streaks can be traced along the whole of the outer two-thirds of the costa; cilia pure silvery-white, tending to greyish about the tornus, and tipped along their upper half with chestnut-brown. *Exp. al.*, 17 mm. *Hindwings* stone-greyish, with scarcely paler cilia, a very faint line along their base. *Abdomen* stone-greyish. *Legs* pale stone-grey, inclining to ochreous.

Type. ♂.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); unique.

LASPEYRESIA, Hb.

Laspeyresia hemisphærana, sp. n. (Pl. III., fig. 23.)

Antennæ black. *Palpi* scarcely roughened beneath, apical joint short, porrect; snow-white, second joint blackened above towards the base. *Head* black, white above posteriorly. *Thorax* greyish, with a conspicuous white band across in front. *Forewing* slaty-grey, shaded with fuscous along the outer half of the costa; with a large semicircular brownish patch on the middle of the dorsum, narrowly outlined with white; several narrow very oblique whitish costal streaks and two very conspicuous clear white ones before the apex, the first very oblique, the second straight and parallel with the termen; a few whitish scales along the extreme base of the costa; cilia whitish, a dark fuscous parting line along their base. *Exp. al.*, 14 mm. *Hindwings* brownish fuscous; cilia pale whitish grey, a darker parting line along their base. *Abdomen* brownish fuscous. *Legs* greyish fuscous.

Type. ♂.

Hab. Sierra Leone—21, IV. (Dr. Clements); French Congo—Kangwé, Ogowé River (Rev. A. C. Good); two specimens.

CYDIA, Hb.

(= CARPOCAPSA, Tr.)

Cydia ? *prætextana*, sp. n. (Pl. III., fig. 24.)

Antennæ ochreous. [*Palpi* missing.] *Head* and *thorax* canary-yellow, the latter white with a greyish tinge beneath. *Forewings* canary-yellow blending to rich orange along the costa, and reddish ferruginous along the termen, with some reddish ferruginous blotches in a wide fasciated band across the middle and along the dorsum; a series of about nine small black dots along the extreme costa, and numerous raised spots of bright steel-grey scales scattered about the darkened portions of the wing; a series of these starting at one-fourth from the base continues nearly parallel with the costa, these are chiefly circular or oblong, those nearest to the costa being smaller than those below them; at one-fifth from the apex is a longer steel-grey spot placed obliquely and pointing to a similar elongate spot within the lower half of the termen; a long narrow spot of the same colour lies parallel with the termen below the apex and a shorter one immediately within the tornus; from the last spot tending towards the base is a series of three large similar metallic circular spots, and another lies upon the fasciated band

which crosses the wing; an orange spot preceded by some fuscous scales lies at the extreme base of the dorsum; cilia shining dark steel-grey. Underside orange, broadly black-margined throughout. *Exp. al.*, 18 mm. *Hindwings* rich orange, with a rather broad black border; cilia on the abdominal half of the margin orange, on the outer half greyish, with a black parting line at their base. Underside orange, narrowly black-margined throughout. *Abdomen* orange, canary-yellow at the extreme base, the posterior segments narrowly indicated with black, anal tuft black. Underside whitish. *Legs* (anterior) yellowish, with blackish spots [posterior *legs* missing].

Type. ♂.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); unique.

The neuration of the hindwings differs from *Cydia* in having 6 and 7 converging, but distinctly separated. As the palpi are missing, I prefer to place the species in *Cydia* provisionally rather than to create a new genus for its reception.

TORTRICINÆ.

Tortrix, L.

Tortrix viridis, Wlsm.

Argyrotoxa viridis, Wlsm., Trans. Ent. Soc. Lond., 1891, 68–9. Pl. III., 4[1].

Hab. Gold Coast—Accra[1]; French Congo—Kangwé, Ogowé River (Rev. A. C. Good).

CARPOSINÆ, subfam. n.

Median vein of hindwings pectinate at base; vein 2 of forewings rising from posterior fourth of cell.

Autogriphus, gen. n.

(αὐτός = of itself, γρῖφος = a puzzle.)

Type. *Autogriphus luteus*, Wlsm.

Antennæ (♀) simple, basal joint slightly enlarged and somewhat roughly clothed. *Labial palpi* long, porrect, reaching three times

the length of the head beyond it, second joint triangular with a brush of scales above tapering to its apex, apical joint short porrect. *Maxillary palpi* absent. *Haustellum* present. *Head* and *thorax* smooth. *Forewings* narrow, elongate, costa evenly but moderately arched throughout, apex depressed, slightly produced, termen oblique, scarcely sinuate, with slight tufts of raised scales. *Neuration*, 12 veins ; 8 and 9 from a common stem, 7 to slightly below apex, 2 from very near angle of cell, 3 and 4 from a very short common stem, 5 from near origin of 3 + 4, 11 bent over at base to very near origin of 10, an internal vein running towards the base from between 5 and 6; vein 1 furcate at base. *Hindwings* broader than the forewings, apex slightly produced, obtuse, termen evenly rounded, median vein pectinated at base. *Neuration*, 7 veins (6 and 7 coincident) ; 3 and 4 from a short stalk, 5 straight, not bent over, and continued through the cell as an internal vein. *Abdomen* smooth. *Legs*, hind tibiæ slightly hairy above, spurs rather long and slender.

Autogriphus luteus, sp. n. (Pl. II., fig. 10.)

Antennæ greyish. *Palpi* pale cinereous, shaded with fuscous beneath. *Head* and *thorax* pale cinereous, the latter mottled with brown and brownish fuscous. *Forewings* pale cinereous, much suffused and mottled with brown ; with six elongate fuscous spots along the outer two-thirds of the costa, a conspicuous dark fuscous spot of slightly raised scales at the end of the discal cell between veins 5 and 6, and a smaller one, also raised, about the lower angle of the cell before and beneath it ; a few raised greyish scales a little beyond the middle of the fold on its upper edge, and some also beneath the fold nearer to the base ; along the termen is a slight shade or suffusion of brownish fuscous scales, its inner margin sinuate, angulated inwards at its middle, and recurved at both extremities, the upper extremity not reaching to the costa, the lower terminating about the tornus ; cilia greyish, a slightly paler line along their base. *Exp. al.*, 21 mm. *Hindwings* grey, the spaces between the veins, especially about the abdominal margin, semitransparent with a bluish iridescence ; cilia pale grey. *Abdomen* [greasy]. *Legs* pale greyish, hind tarsal joints faintly annulate.

Type. ♀.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good) ; unique.

TINEIDÆ.

TINEINÆ.

ECCOMPSOCTENA, gen. n.

(*Compsoctena*, nom. gen.)

TYPE. *Eccompsoctena secundella*, Wlsm.

Antennæ, ♂ strongly bipectinate (3½), the pectinations biciliate. *Labial palpi* short, slender, but roughly clothed, scarcely projecting beyond the rough scales of the face. *Maxillary palpi* and *haustellum* rudimentary. *Head* and face rough. *Thorax* rather roughly clothed. *Forewings* scarcely narrower towards the base than beyond it, costa slightly convex, apex rounded, termen oblique, slightly convex. *Neuration*, 12 veins; 7 and 8 from a long common stem, 7 to apex, 8 to above apex from a small supplementary cell, from which 9 and 10 also arise, these latter meeting at their extremity on the costal margin. *Hindwings* as broad as the forewings. *Neuration*, 8 veins, all separate; 6 and 7 separate and parallel. *Hind legs* thickly clothed, not hirsute.

Eccompsoctena secundella, sp. n. (Pl. II., fig. 11.)

Antennæ and *palpi* brown. *Head* and face ochreous. *Thorax* umber-brown. *Forewings* pale ochreous, thickly mottled, speckled, and suffused with umber-brown scales, the two colours alternating along the costa in unequal spaces throughout; a rather strong patch of umber-brown scales lies at the end of the disc, which appears to be the only point at which this colour is more concentrated than on the remainder of the wing-surface, although it somewhat prevails also towards the apex and tornus; cilia pale ochreous, with an umber-brown parting line along their middle, and another at their extremities. *Exp. al.*, 22 mm. *Hindwings* purplish fuscous; cilia cinereous, with a dark parting line near their base. *Abdomen* purplish fuscous, anal tuft inclining to ochreous. *Legs* dull ochreous.

Type. ♂.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); unique.

This has so much the appearance of *Compsoctena primella*, Z., that it might easily be mistaken for that species, but the neuration differs in the forking of veins 7 and 8, and the meeting of veins 9 and 10 towards the costa of the forewings, and the palpi are very much shorter.

MESOPOLIA, gen. n.

(μεσοπόλιος = grizzled.)

TYPE. ♂ *Mesopolia inconspicua*, Wlsm.

Antennæ, ♂ strongly bipectinate (3–4), the pectinations biciliate, basal joint tufted in front. *Labial palpi* slender, short, porrect, not reaching beyond the head. *Maxillary palpi* and *haustellum* obsolete. *Head* thickly scaled, but moderately smooth. *Thorax* smooth. *Forewings* elongate ovate, costa evenly arched, apex rounded, termen oblique, tornus rounded. *Neuration*, 12 veins; 7 and 8 stalked, 8 to below the apex, 5 somewhat bent over and approximate to 4 at its base; an internal vein forms a supplementary cell by arising from slightly below 7 + 8 and running to between 10 and 11, and a stalked internal vein from between 11 and the base emits branches to either side of 5. *Hindwings* as broad as the forewings, ovate, costa slightly convex. *Neuration*, 8 veins all separate; 6 and 7 closely approximate at base, 5 approximated to 4, a stalked internal vein emits its branches to either side of 5. [*Legs* and *abdomen* missing.]

This genus appears to be allied to *Narycia*, Stph. (*Xysmatodoma*, Z.), but differs in the form of the antennæ and in neuration. It has very much the appearance of *Psilothrix dardoiniella*, Mill., but is somewhat larger and there are no veins missing as in that species. Nothing is known at present of its habits, but the larva is probably a case-bearer.

Mesopolia inconspicua, sp. n. (Pl. II., fig. 12.)

Antennæ ashy-grey. *Palpi* dark fuscous. *Head* and *thorax* ashy-grey, the latter shaded with fuscous anteriorly. *Forewings* ashy-grey with numerous short transverse striæ and spot-like groups of brownish fuscous scales—these form a rather conspicuous spot below the costa near the base, another beyond and below it extending on both sides of the fold, and a third about the middle of the wing, there is also a slight shade about the upper angle of the cell; the other spots are more or less distributed over the wing surface; cilia ashy-grey with a slight parting shade along their middle. *Exp. al.*, 23 mm. *Hindwings* pale brownish, cilia slightly paler. [*Abdomen* and *hindlegs* missing.]

Type. ♂.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); unique.

COMPSOCTENA, Z.

Compsoctena media, sp. n. (Pl. III., fig. 25.)

Antennæ dentate, shortly biciliate ; pale cinereous. *Palpi* projecting less than the length of the head beyond it, brush-like ; dull ochreous with a few brownish scales. *Head* very roughly clothed ; dull ochreous. *Thorax* whitish cinereous, transversely banded with brown. *Forewings* whitish cinereous mottled and reticulated with brown, a series of brownish patches along the costa ; three small ones before the middle, of which the first two form the upper edge of an ill-defined basal patch, a broad one on the middle of the costa, forming the upper end of a somewhat broken transverse fascia inclining slightly inwards to the dorsum, and two beyond the middle, the first small, the second larger, before the apex, also blending with a shade of brownish scales beneath it ; the interspaces between these spots on the outer half of the costa are ochreous, the costal cilia immediately above the apex being also ochreous, and a slight ochreous shade runs through the base of the cilia along the termen, in which are three more or less distinct lines of brown scales, the outer extremities of the cilia being greyish. *Exp. al.*, 16 mm. *Hindwings* purplish grey, cilia pale cinereous with a faint ochreous parting line along their base. *Abdomen* greyish, anal tuft ochreous. *Legs* brown, hind tarsal joints annulated with pale cinereous.

Type. ♂.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); unique.

This species appears to differ somewhat from *Compsoctena primella*, Z., in the formation of the antennæ and in the shorter palpi, but the neuration is the same, and its divergence from the type can be scarcely considered of generic value.

MONOPIS, Hb.

(= BLABOPHANES, Z.)

Monopis monachella, Hb.

= *longella*, Wkr.[33] [? = *mediella*, F.[9].]

[*Alucita mediella*, *F.*, *Ent. Syst. III.* (2), 337, *No.* 26 (1798)[1] : *Tinea mediella*, *F.*, *Sppl. Ent. Syst.*, 494, *No.* 73 (1798)[2]] ; *Tinea monachella*, Hb. Samml. Eur. Schm., VIII., Pl. XXI., 143 (*c.* 1800)[3] ; [? *Tinea mediella*, *Turton*, *Syst. Nat.*, *III.*, 381

(1806)[4]]; *Scythropia monachella*, Hb. Verz. bek. Schm., 414, No. 4001 (1826)[5]; *Lita monachella*, Tr. Schm. Eur., IX. (2), 100–1 (1833)[6]; *Tinea monachella*, Z, Is., 1839, 184[7]; Stn. Zool., VII., 2630 (1849)[8]: Sppl. Cat. Br. Tin. and Pter., 2, No. 39, 1851[9]; Hdnrch., Lp. Eur. Cat. Meth., 79 (1851)[10]; *Tinea* (*Blabophanes*) *monachella*, Z., Linn. Ent., VI., 111–2 (1852)[11]; *Tinea monachella*, Stn. List. Br. An. B. M., XVI., Lp. 9, No. 4 (1854)[12]: Ins. Br. Lp. Tin., 27 (1854)[13]; *Blabophanes monachella*, H.-S. Schm. Eur., V., 79, Index, p. 29 (1856)[14]; *Tinea monachella*, Koch. Schm. S. W. Deutschl., 376 (1856)[15]; Stn. Mn., II., 290 (1859)[16]; Stgr. and Wkr., Cat. Lp. Eur., 106, No. 1210 (1861)[17]; Wkr., Cat. Lp. Ins. B. M., XXVIII., 465 (1863)[18]; *Tinea longella*, Wkr., Cat. Lp. Ins. B. M., XXVIII., 479 (1863)[19]; *Tinea monachella*, de Graaf, Tijd. v. Ent., IX., 44 (1866)[20]; Rssl., Nass. Nat. JB., XIX.–XX., 315 (= Verz. Schm. Nassau., 215), No. 1290 (1866)[21]; *Blabophanes monachella*, Hein. Schm. Deutsch. Tin. (I.) 39 (1870)[22]; Stgr. and Wk., Cat. Lp. Eur. 269, No. 1369 (1871)[23]; *Blabophanes longella*, Btl., Ann. and Mag. N. H. (5 s.), VII., 396–7 (1881)[24]; Wlsm., Tr. Ent. Soc. Lond., 1881, 243–4[25]; *Blabophanes monachella*, Snell., Vlind. Ned. Micr. 457–8 (1882)[26]; Meyr., Ent. Mo. Mag., XX., 36 (1883)[27]; Sorh. Kleinschm., Mark Brndbg., 143–4 (1886)[28]; *Blabophanes longella*, Moore, Lp. Ceyl., III., 503, Pl. 209, 1 (1887)[29]; Swinh. and Cotes, Cat. Moths Ind., 702, No. 4790 (1889)[30]; Wlsm., Tr. Ent. Soc. Lond., 1891, 87[31]; *Blabophanes monachella*, Wlsm., Tr. Ent. Soc. Lond., 1891, 87[32]; Meyr., Tr. Ent. Soc. Lond., 1894, 27[33]; *Monopis monachella*, Meyr., HB., Br. Lp., 785 (1895)[34].

Larva—among rubbish,[11, 28]; in birds' nests (Büttner)[28]; in skins[25].

Hab. Europe—V., [7, 8, 11, 13, 15-6, 21-2]; VI., [15, 20, 22, 26, 28]; VII., [11, 26]; VIII., [7, 11, 13, 15-6, 22, 26, 28]; IX., [26, 28]; Germany, [1, 2, 4, 6, 7, 11, 14, 15, 21-3, 28]; Austria, [6, 11, 14, 23]; Holland, [20, 26]; England, [8, 9, 11-16, 23-4]. India—N. India, [19, 24, 25]; Nilghiris,[30]; Burmah—Koni,[33]; Ceylon, [29, 30]. Africa—Gambia

(Bathurst)[31-2]. XI.-XII.,[32]; French Congo (Kangwé, Ogowé River—Rev. A. C. Good); Natal (Spring Vale)[24, 25]; II.,[25]; Zululand,[31]. Hawaiian Is. (Honolulu)[24, 27, 33-4].

When recording *monachella* as new to the African fauna (*l. c.*, No. 32), I expressed the opinion that *longella* was probably only a variety, and Meyrick (*l. c*, No. 33) sunk *longella* as a synonym. The acquisition of further specimens confirms the opinion that these two forms cannot be rightly separated. I am not aware that the variety *longella* occurs in Europe, but the ordinary form is certainly met with in other localities, from which I have received it (*e. g.*, India, Africa, and Ceylon), but is apparently not found in the Hawaiian Island, whence I have only received *longella*. It seems extremely probable that the first description of this species is that of Fabricius, under the name of *Alucita mediella* (*l. c.*, No. 1). Stainton drew attention to this with a "?" (*l. c.*, Nos. 9, 12, 13), and Herrich-Schäffer endorsed his opinion (Schm. Eur. V., Index, p. 29), while Werneburg, Beitr. Schm. I., 489, 591 (1864), regarded it as a variety, or as a worn specimen of *Gracilaria alchimiella*, Sc., to which it seems to me impossible that the description could apply. I hesitate to adopt the name *mediella*, F. (*nec* Hb.); although if this insect were intended it must undoubtedly have priority, and for the present I prefer to retain it as a probable synonym with a "?", but not without hope that some further evidence may be obtainable to throw light upon the subject. I think however that the description could fairly apply to a worn specimen of that form in which the head assumes a decidedly yellowish colour.

Scalidomia, Wlsm.

Scalidomia hirsutella, Wlsm.

Psoricoptera (?) *hirsutella*, Wlsm., Tr. Ent. Soc. Lond., 1881, 261, Pl. XII., 29[1].

Hab. Gambia—Bathurst, VIII. (Sir G. Carter); French Congo—Kangwé, Ogowé River (Rev. A. C. Good); Natal [1].

TIQUADRA, Wkr.

Tiquadra lichenea, sp. n. (Pl. III., fig. 26.)

Antennæ fawn-brown. *Palpi*, second joint with a loose projecting tuft beneath, apical joint of about equal length, erect, also thickly clothed; fawn-brown. *Head* and *thorax* fawn-brown, the latter pale greenish posteriorly. *Forewings* very hirsute, with patches of upstanding scales, all the margins with rough cilia, except on the basal third; pale bluish green with spots and ill-defined cross-streaks of raised coarse hair-like fawn-brown scales, giving a somewhat reticulated appearance; of these some at the end of the disc, and others above and about the outer third of the fold, are more conspicuously raised; the outer half of the costa, which is very roughly fringed, is distinctly chestnut-brown, and this colour extends narrowly towards the base, the termen also has some chestnut-brown scales, but the majority of the cilia are dirty whitish. Underside fawn-ochreous. *Exp. al.*, 24 mm. *Hindwings* and *cilia* fawn-ochreous. Underside the same. *Abdomen* fawn-ochreous. *Legs* slightly paler than the abdomen.

Type. ♂.

Hab. French Congo—Kangwé, Ogowé River (Rev. A. C. Good); unique.

An interesting species allied to *goochii*, Wlsm.

ADELINÆ.

NEMATOIS, Hb.

Nematois parvella, Wkr. (Pl. III., fig. 27.)

Nematois parvella, Wkr., Cat. Lep. Ins. B.M., XXVIII., 504 (1863)[1].

Antennæ three times as long as the forewings; cinereous. *Palpi* almost obsolete. *Head* cinereous, with some metallic scales. *Thorax* purplish, with metallic scales. *Forewings* narrow at the base, widened outwardly, costa depressed to the apex; purplish cinereous, richly studded with brassy metallic scales, strongly iridescent in different lights, with three yellowish ochreous patches: the first on the dorsal half at the base; the second triangular, narrowly margined with black scales, extending inwards from the costal margin about the middle to the fold; the third lying beyond the end of the cell, occupying the middle of the apical portion of the wing, and produced narrowly inwards and upwards to the com-

mencement of the costal cilia, a few blackish scales lying around its margins ; a line of blackish scales crosses the wing obliquely inwards from the costal to the dorsal margin near the base ; cilia iridescent, brassy, with some greenish scales below the apex. *Exp. al.*, 16 mm. *Hindwings* cupreous, with shining brassy cilia. *Abdomen* cupreous. *Legs* cinereous, with rather long hair-scales on the tibiæ.

Hab. Sierra Leone[1], 11.V.—VI. (Dr. Clements) ; French Congo—Kangwé, Ogowé River (Rev. A. C. Good).

I described this species as new before identifying it as *parvella*, Wkr., and it may be well to publish my description, as Walker's is hardly precise enough to distinguish it from allied forms occurring in the Malay Archipelago.

Explanation of Plates II. and III.

[*See Explanation facing the* Plates.]

Explanation of Plate II.

Fig. 1. (In adjacent compartment. When,) ... 34
(With head, and bald side.)

2. Pointing (or pursuing. When,) ... 35
(With head, and points of antennæ [enlarged] ... and antennæ.)

3. Standing motionless. When,) ... 37
(With head.)

4. Running (or moving. When,) ... 38
(With head, and foot in attitude something [illegible] ... position.)

5. (Opposite compartment. When,) ... 39
(With head.)

6. Running (or moving. When,) ... 41
(With head.)

7. [illegible] ... When,) ... 42
(With head.)

8. [illegible] ... When,) ... 43
(With head.)

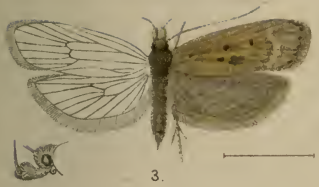
9. [illegible] ... When,) ... 44
(With head.)

10. [illegible] ... When,) ... 45
(With head.)

11. [illegible] ... When,) ... 46
(With head.)

12. [illegible] ... When,) ... 47
(With head, and foot of opposite compartment.)

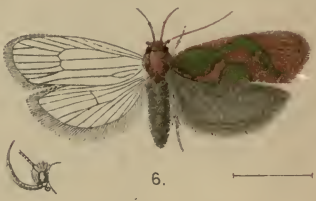
2.



3.

4.

5.



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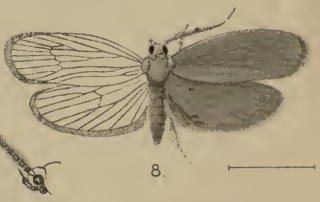
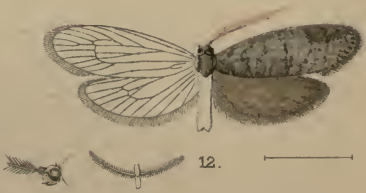


8.

9.

10.

11.



12.

Hanhart Collotype Lithos. de. A. Werder. Hdh.

P.W.M.Trap Chromo.

Explanation of Plate III.

		PAGE
Fig. 13.	*Ypsolophus basistriatus*, Wlsm., ♂	39
14.	*Theatrocopia elegans*, Wlsm., ♀	42
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F. Bainbrigge Hulton

THE

TRANSACTIONS

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ENTOMOLOGICAL SOCIETY

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I. *Monograph of the genera connecting* Tinægeria, *Wlk.*, *with* Eretmocera, *Z.*

By The Right Hon. Lord WALSINGHAM, M.A., F.R.S., F.L.S., &c.

[Read December 5th, 1888.]

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THE object of the present paper is to collect and arrange material for a study of certain genera of Micro-Lepidoptera, about the classification of which various opinions have already been expressed by different authors who have alluded to the subject.

The genera here presented for study are as follows:—

Tinægeria, Wlk.
Snellenia, Wlsm.
Pseudægeria, Wlsm.
Œdematopoda, Z.
Eretmocera, Z.

A careful and critical examination of their structure and affinities seems to disclose gradual modification, and to suggest that they are connected with each other

by characters not jointly possessed by any other genera of those families or subfamilies in which they have hitherto been classed.

The species examined are those in the British Museum and in the Zeller collections, and especially a fine series of specimens in my own cabinet, for which I am indebted to Mr. G. T. Carter, Mr. F. J. Jackson, Mr. J. H. Leech, and Mr. H. Druce.

The question of classification has been touched upon under the various descriptions of species by Zeller, by Staudinger, by Walker, by Stainton, and by Meyrick; also at more length by Butler in a paper entitled "On the natural affinities of the lepidopterous family *Ægeriidæ*" (Trans. Ent. Soc. Lond., 1878, pp. 121—5, Plate V.).

Zeller regarded *Eretmocera* (including *Œdematopoda*) as forming a connecting-link between that section of the unrestricted genus *Œcophora*, which included *esperellum*, Hb., *seleniellum*, Z., and *chenopodiellum*, Hb. (now associated with *Butalis*, Tr.), and the equally unrestricted genus *Elachista*, as represented by the species *æratella*, Z., *modestella*, Dp., &c. Staudinger, in describing his *Staintonia medinella*, states his opinion that it comes nearest to *Butalis*.

Walker, in the British Museum Catalogue, makes some very significant remarks. Of *Tinægeria* he writes, "this genus seems to connect the *Tineites* with the *Ægeriidæ*"; of *Arauzona* he writes, "this genus seems to connect the *Ægeriidæ* with the *Gelechidæ*." He further places *impactella* in the genus *Gelechia*, and says "this species appears to have some affinity to the *Ægeriidæ*."

Stainton remarks of his *Atkinsonia*, "a singular and beautiful genus belonging to the family *Elachistidæ*," and mentions its habit, when at rest, of erecting its hind legs above its back behind the head (as in *Shreckensteinia* and *Heliodines*, Stn.), and vibrating its plumed antennæ. He also notes the larval habits (which are similar to those of many species of *Butalis*). Moreover, in his '*Tineina* of Southern Europe,' he places *Staintonia* between *Endrosis* and *Schreckensteinia*, where it stands also in Staudinger and Wocke's Catalogue.

Meyrick classifies *Castorura* with the *Elachistidæ*, and Butler draws attention to the affinities with the *Ægeriidæ*

of *Tinægeria*, *Arauzona*, and *Acridura*, and remarks that *Acridura* combines "the characters of the clear wings with those of the *Pyrales* and *Gelechiidæ*." He further states that, "A careful study of all the genera which seem to be allied to *Acridura* has manifested a gradation of structure from the *Ægeriidæ* to the *Pyrales*, on the one hand, and from the *Ægeriidæ* to the *Gelechiidæ* on the other." He goes on to say:—"The difficulty of pointing out the resemblance of the *Ægeriidæ* to the *Gelechiidæ* is nothing to that of determining where the line of demarcation between the two families is to be drawn: thus *Tinægeria* is apparently a small form of *Ægeriid* with long, slender-curved palpi, and a hairy second joint to its antennæ; it is without doubt allied to *Arauzona* and to *Acridura*, less nearly to *Tinthia*, which is close to *Ægeria;* on the other hand, the Gelechiid genus *Exodomorpha* (*Staintonia*, Staud.) is evidently the African representative of the New World genus *Tinægeria;* indeed, I have hitherto only found one structural character to distinguish them by, namely, the form of the secondaries; yet *Exodomorpha* chiefly differs from *Gelechia* in the hairy second joint to its antennæ, and the non-indented apex of its posterior wings."

Thus it will be seen that in the case of *Eretmocera* (shown in this paper to represent *Exodomorpha*, *Staintonia*, and *Castorura*), Zeller, Staudinger, Stainton, and Meyrick recognise its affinity to the *Elachistidæ;* while Walker and Butler agree with each other in referring it to the *Gelechiidæ*, and in pointing out its connection with the *Ægeriidæ*, with which Butler also connects the *Pyrales*.

It should be borne in mind that the family regarded by Walker as *Gelechiidæ* included the genus *Butalis*, since referred to the *Elachistidæ*. Thus Walker's opinion was not at variance with those of Zeller, Staudinger, Stainton, and Meyrick.

Mr. Butler can scarcely have intended to include *Butalis*, or any other genus of the now generally recognised *Elachistidæ* in the term *Gelechiidæ*, for he expressly mentions the indented hind wings of that family, a character not exhibited by *Butalis* or its allies.

In the case of *Œdematopoda* (shown here to equal *Atkinsonia*), Zeller and Stainton also agree in referring

it to the neighbourhood of *Butalis* or the *Elachistidæ:* and in the case of *Tinægeria*, Walker and Butler again agree that the genus seems to connect the *Ægeriidæ* with certain families of the *Tineites*. Felder and Rogenhofer place the type of the genus with a "?" in *Eretmocera*, and a specimen in my own collection, received from Mr. G. F. Mathew, was named by Mr. Meyrick before I received it, "*Atkinsonia lineata*, Walk.," showing that all these authorities concur in classing *Tinægeria* with the *Tineites* (*Tineina*, Stn.).

I am unable to regard the genus *Acridura* as allied to any of the genera here mentioned; its long, slender, and pointed abdomen, its Pyralidiform wings and neuration, and certainly its general appearance, seem to separate it very widely from *Tinægeria* at the one end, as well as from *Œdematopoda* and *Eretmocera* at the other end of our proposed series.

The more important structural characters of the genera included in this paper are as follows :—

1. Antennæ thickly clothed with more or less long projecting scales, extending to a greater or less distance along them.

2. A greater or less tendency to transparency in the hind wings.

3. Legs often more or less clothed with projecting scales upon or above the strong spurs.

4. Bodies usually flattened, frequently brightly coloured, and with strong lateral scales.

4. Fore wings narrow, elongate, the costal and dorsal margins nearly straight, and parallel to beyond the middle; the apex depressed.

If any affinity to the *Ægeriidæ* can be supposed to exist in this group of genera, the species having transparent hind wings may be regarded as in this respect showing less departure from the characters of that family than others with opaque hind wings. For this reason, as a matter of convenience in classification rather than as an arbitrary assertion of a supposed physiological fact, however probable, I have here ranged the genera according to their degree of approach in structure and appearance to the "*Ægeriidæ*." They seem to present a gradual and well-marked departure from the typical form of that family by modifications traceable step by step throughout the series, but it should be

observed that they all differ from them in their longer recurved palpi.

First, it should be remarked that the structure of the antennæ is approximately uniform throughout the series here noticed; the variation occurs in the nature and amount of scale-clothing only. Butler's observations as to the long hairy second joint in the antennæ of *Tinægeria* and *Exodomorpha* are incorrect, inasmuch as not the second joint only, but the whole basal portion of the antennæ to near or beyond the middle, consisting of from thirty to forty joints, is thickly clothed, more densely in the female than in the male, no one joint being noticeably longer than the others.

The amount of transparency in the hind wings is most noticeable in *Tinægeria*, gradually diminishing in *Snellenia*, confined to the extreme abdominal angle in *Œdematopoda*, and barely traceable in *Eretmocera*.

The scaling of the legs and spurs reaches its highest development in *Snellenia latipes*, originally placed by Walker in *Tinægeria;* it is also very noticeable in *Œdematopoda;* the spurs of *Œ. clerodendronella* are so thickly clothed as to have been taken for tufts of scales by Stainton when describing the species. This character almost disappears in *Eretmocera*, but the spurs are well-developed, and the structure of the legs sufficiently resembles those of *Œdematopoda* to point to the conclusion that its habit of elevating them above the body may be the same as described in the case of *clerodendronella*. The flattened structure of the abdomen is approximately uniform throughout the genera. The lateral scaling is traceable in *Tinægeria*, somewhat more developed in *Œdematopoda* and *Snellenia*, and strongest in *Eretmocera;* the anal tuft is always well-developed.

We now come to the shape and neuration of the wings, a character in which a gradual change is also noticeable. The narrow elongate fore wings are present throughout the group, but the neuration differs perceptibly, and the form of the hind wings is not entirely consistent; *Tinægeria*, as here limited, standing somewhat apart from the other genera, except *Pseudægeria*, in having the abdominal margin of the hind wing bulged towards the middle, giving the wing a wider appearance, and agreeing in this respect with the genus *Dasycera*, which also possesses the narrow fore wings, clothed antennæ, and slender recurved palpi characteristic of this genus. I

should be inclined to admit that some natural affinity may exist between them, but I doubt if it can be held to break the chain connecting *Tinægeria* with *Eretmocera*, nor do I think it forms a true link in that connection.

The hind wings of *Snellenia*, in which I have included *S. latipes*, originally placed by Walker in his genus *Tinægeria*, are narrow, with the margins nearly parallel, and the apex rounded. In *Œdematopoda* and *Eretmocera* the hind wings are pointed, but the neuration shows gradual progression from the one to the other. In *Tinægeria*, *Snellenia*, and *Pseudægeria* the discal cell in both fore and hind wings is somewhat square at the outer extremity. In *Œdematopoda* it is square in the fore wings and pointed in the hind wings, and in *Eretmocera* it is pointed in both fore and hind wings. The apical vein of the fore wings is forked throughout. An additional link in the chain of connection appears in the labial palpi; these, in *Œdematopoda*, are very slender and strongly recurved, in this respect nearly approaching *Tinægeria*, whereas, in the form of the hind wings, it appears to be more nearly allied to *Eretmocera*, of which Zeller regarded it as a subgenus.

It is unfortunate that so far little or nothing is known of the larval habits of these insects. Stainton describes the larva of *Œ. clerodendronella* as feeding in webs on shoots of *Clerodendron*. *E. medinella* is only known to frequent the flowers of *Umbelliferæ* in Spain (*teste* Stdgr.) and *Senecio* in Persia (*teste* Christoph.); and Mr. G. T. Carter, who has watched the habits of three or four species of *Eretmocera* flying in October at Bathurst, and at Accra in West Africa, although he has at present failed to discover their larvæ, has supplied me with a sketch of the plant which they habitually frequent, somewhat resembling *Clerodendron*, and possibly referable to one of the African species of *Verbenaceæ*. The flowers of these shrubs, like the hind wings of many species of *Eretmocera*, are often scarlet or crimson, and they flower about the time of year at which the specimens were taken.

It is certainly worthy of a passing notice that the geographical distribution of the genus *Clerodendron* coincides somewhat remarkably with what is known of the distribution of the genera mentioned here; but it would be obviously unsafe to found any argument in favour of their affinity to each other on such slender grounds. The parallel may be a mere coincidence.

Habitat.		*Clerodendron*
Africa		*myrocoides* (Trop. Afr.)
S. Africa	*Eretmocera derogatella*, Wlk. ,, *fuscipennis*, Z. ,, *lætissima*, Z. ,, *lunifera*, Z. ,, *miniata*, Wlsm. ,, *scatospila*, Z. *Œdematopoda princeps*, Z.	
W. Africa	*Eretmocera basistrigata*, Wlsm. ,, *carteri*, Wlsm. ,, *fuscipennis*, Z. ,, *lætissima*, Z. ,, *scatospila*, Z.	*scandens.* *splendens.* *thompsonæ.*
E. Africa (Zanzibar)	,, *derogatella*, Wlk. ,, *dorsistrigata*, Wlsm. ,, *miniata*, Wlsm.	*macrosiphon.*
Mauritius		*hæterophyllum.* *ligustrinum.*
Europe	,, *medinella*, Stgr.	
Persia and Turkestan	,, *medinella*, Stgr.	
China		*fœtidum.* *fragrans.* *seratinum.* *squamatum.*
Japan	*Œdematopoda ignipicta*, Btl. ,, *leechii*, Wlsm.	*trichotomum.*
India	,, *clerodendronella*, Stn. Larva drawing together terminal leaves of *Clerodendron* with a white web. *Eretmocera impactella*, Wlk. *Snellenia coccinea*, Wlsm. ,, *tarsella*, Wlsm.	*fortunatum.* *hastatum.* *inermæ.* *infortunatum.* *macrophyllum.* *nutans* (Sylhet). *phlomoides.* *siphonanthus.* *viscosum.*
Ceylon	*Eretmocera impactella*, Wlk.	*infortunatum.*
Singapore	,, *impactella*, Wlk.	
Java		*fallax.* *paniculatum.* *rumphianum.*
Borneo	*Snellenia bimaculata*, Wlsm.	*bethuneanum.*
Celebes		*illustre.* *minahassæ.*
Australia	,, *lineata*, Wlk. *Eretmocera chrysias*, Meyr. *Pseudægeria squamicornis*, F. & R.	*tomentosum.* *costatum.*
Fiji	,, *squamicornis*, F. & R.	
S. America	*Tinægeria basalis*, Wlk. ,, *fasciata*, Wlk. ,, *ochracea*, Wlk. *Snellenia flavipennis*, F. & R. ,, *latipes*, Wlk.	A few species chiefly natives of W. Indies and Columbia. One species broadly diffused over the maritime regions of Tropical America [*Petræa volubilis*, Vera Cruz.]

It remains to refer to two species which have been placed by their authors in one of the genera here monographed, but which I have ventured to exclude:—

1. *? Staintonia fulgens*, Erschoff, Hor. Soc. Ent. Ross., XII., 347, 1876.

The description is wholly inadequate to connect it with the genus *Eretmocera*, or with the group of genera to which it belongs; indeed, its shorter palpi and broader hind wings serve at once to distinguish it from them. It probably agrees with the genus *Lepidotarphius*, Pryer.

2. *Staintonia? apiciguttella*, Christoph., Bull. Soc. Imp. Nat. Mosc., LVII., 42—3 (1882) = *Butalis sinensis*, F. & R., pl. cxl., fig. 11, 1875 (n. syn.).

Of this species I have specimens in my own collection; it is almost certainly a true *Butalis*.

The changes here suggested in the generic position of certain species, and in the synonymy of the genera, require a few words of explanation.

Tinægeria has been restricted to species of which the antennæ are thickly clothed on the basal half only; these have the hind wings rather widened and almost entirely transparent. *Snellenia latipes*, originally placed in *Tinægeria* by Walker, differs from his type, *T. ochracea*, in its antennæ being clothed nearly to the ends, in its narrower hind wings with nearly parallel margins, and in the strongly-scaled spurs of the hind legs. For these reasons it has been transferred to the new genus *Snellenia*, with which it more nearly agrees. It is possible that at some future time, when more material may become available, it may be convenient to form a new genus for its reception.

Snellenia lineata, also placed by Walker in *Tinægeria*, agrees very closely in structure with *S. coccinea*, the type of *Snellenia*, but differs in its longer and more slender palpi; it differs from *Tinægeria ochracea* in the same particulars as *S. latipes*, with the exception of the strongly-scaled spurs.

After examining, in all details, the structure of *Arauzona basalis*, Walker, I am unable to discover any

sufficient grounds for separating this species from the genus *Tinægeria*.

Œdematopoda, Zeller, possesses all the structural characters relied upon by Stainton in defining his genus *Atkinsonia;* the strong scaling of the spurs occurs again in this genus, and in this character, as in the long elevated fringe of the antennæ, it is merely a question of degree as between Zeller's and Stainton's types. *Eretmocera ignipicta*, Butler, agrees entirely with *Œdematopoda*, and is separable from the true *Eretmocera* by the shape of the discal cell in the fore wings, as well as by the characters mentioned above, which do not occur in that genus.

In Trans. Ent. Soc. Lond., 1881, p. 271, I have already pointed out that *Staintonia* and *Exodomorpha* can only be regarded as synonyms of *Eretmocera;* to these must now be added *Castorura*, Meyrick. Without committing Mr. Meyrick to any approval of the classification suggested in this paper, so far as regards the affinities of the different genera, I may mention that he quite concurs in regarding *Castorura* as identical with *Eretmocera*.

Felder and Rogenhofer figure, in the 'Reise Novara,' the following species under the name "*Eretmocera?*": —*E. æneiceps*, which is obviously *Tinægeria ochracea;* *E. sesioides*, which is certainly *Snellenia lineata;* and *E. flavipennis*, the figure of which differs from that of *sesioides* only in its more yellow colour, in the dark veining of the anterior wings being interrupted by a pale space across the middle, and in the colour of the abdomen, which in *sesioides* is figured of a uniform dark tinge, and in *flavipennis* is yellow, with the apex only of a darker colour.

The figures are not satisfactory but they indicate these points of difference with sufficient clearness; and in the letterpress the locality for *flavipennis* is "Amer.?," of *sesioides*, "Sidney." *Snellenia lineata* = *sesioides* is from Sydney, Australia, and is so labelled in the British Museum, as in my own collection; but, in describing the species, Walker states that his specimens were from "Para, Bates' coll." This, although evidently an error as regards the actual specimens now existing, seems to increase the suspicion, founded upon Felder's "Amer.?," that a somewhat similar species does occur on the

American continent. If Felder's species was truly American, it was probably obtained by Lindig from Bogota, approximately in the same region where Bates collected.

Walker's description seems to apply to the insect figured by Felder as *Eretmocera? sesioides*, and it is probable that two of the specimens in the British Museum are rightly regarded as his types of *lineata*. These two are distinctly and separately labelled "Sidney," and as the other two specimens, to which Walker's manuscript name *Pegella ægeriella* is attached, are also both labelled "Australia," it seems impossible to account for his error in stating that his types were collected by Bates at Para.

This paper contains descriptions of two new genera and eight new species, and as it is intended as a monograph, so far as it goes, the descriptions of the known species are proposed to be republished, with such notes and additions as may serve to facilitate their recognition.

Tinægeria, *Wlk.* = Arauzona, *Wlk.*

Type. *Tinægeria ochracea*, Wlk.

Antennæ thickly clothed with long scales to half their length, thence simple. *Labial palpi* recurved, ascending, very long and slender; 2nd joint about equal in length to the apical joint, and slightly straighter. *Maxillary palpi* small, drooping. *Haustellum* long, scaled at base. *Ocelli* present. *Head and thorax* smooth. *Fore wings* elongate, the margins nearly parallel, rounded at apex; *neuration*, 12 veins, 7 and 8 from a common stem. *Hind wings* partially transparent, widened in the middle, tapering towards the base and apex, costal margin somewhat depressed beyond the middle, apex rounded, dorsal margin evenly rounded; *neuration*, 8 veins, 6 and 7 parallel, 3 and 4 separate at the base, 3 from, or near, angle of cell. *Abdomen* brightly coloured, not fringed at the edges. *Legs* with long spurs not tufted at the joints. [Wlsm.]

Tinægeria, *Wlk.*, Cat. Lp. Ins. B. M., VIII., 260 (1856).

Type. *Tinægeria ochracea*, Wlk.

"Corpus gracile. Proboscis brevissima.* Palpi graciles, arcuati, ascendentes, thorace non breviores. Antennæ setaceæ, graciles,

* ? fracta.—Wlsm.

subpilosæ, corpore fere longiores. Abdomen lineare, gracile, apice non fasciculatum. Pedes graciles; tibiæ posticæ calcaribus quatuor longis. Alæ perangustæ; posticæ limpidæ.

"Body slender. Proboscis very short.* Palpi slender, curved, ascending, as long as the thorax; third joint very slender. Antennæ setaceous, slender, slightly pilose, full as long as the body. Abdomen linear, sessile, not tufted at the tip. Legs slender; hind tibiæ with four long spurs. Wings very narrow. Hind wings mostly limpid.

"This genus seems to connect the *Tineites* with the *Ægeriidæ*."

= Arauzona, *Wlk.*, Cat. Lp. Ins. B. M., XXXI., 25—6 (1864), (n. syn.).

Type. *Arauzona basalis*, Wlk.

"Mas.† Corpus gracile, sublineare. Proboscis longa, valida. Antennæ alis anticis paullo longiores, fimbria brevi densa munitæ, apices versus glabræ. Abdomen alas posticas longissime superans. Pedes læves, breves, robusti; tibiæ posticæ subincrassatæ, calcaribus duobus apicalibus validis. Alæ anticæ angustæ, vestitæ; posticæ vitreæ.

"Male.† Body slender, nearly linear. Proboscis long, stout. Antennæ a little longer than the fore wings, with a thick short fringe along nearly two-thirds of the length from the base. Abdomen extending for nearly its whole length beyond the hind wings. Legs short, stout, smooth; hind tibiæ slightly incrassated, with two long stout apical spurs. Wings narrow. Fore wings opaque, rounded at the tip. Hind wings vitreous.

"This genus seems to connect the *Ægeriidæ* with the *Gelechidæ*."

[Pl. i.]

♂ ♀, *ochracea*, Wlk., Cat. Lp. Ins. B. M., VIII., 260 (1856).

"Ochracea, subtus argentea; caput nigro-cyaneum; antennæ nigræ, apices versus albæ; thoracis disco et abdominis apice nigrum; alæ anticæ nigræ, basi fasciaque subapicali ochraceis; posticæ limpidæ, apud costam ochraceus, apice nigricantes.

"Ochraceous, silvery beneath. Head dark blue. Disc of the thorax and tip of the abdomen black. Fore wings black, ochra-

* ? broken.—Wlsm.

[† The palpi are missing from the type, and the specimen is unquestionably a female.—Wlsm.]

ceous towards the base, and with an ochraceous subapical band. Length of the body, 2½ lines; of the wings, 5 lines.

"a. b. Para; from Mr. Bates' collection."

[This species is identical with *Eretmocera? æneiceps*, F. & R., from Bogota.—Wlsm.]

Antennæ yellow at the base, thence thickly clothed with dark purplish-fuscous scales to half their length, thence broadly banded with white; apical one-third purplish fuscous. *Labial palpi* recurved, long, slender, 2nd joint about equal in length to the apical joint and slightly straighter; purplish at the extreme base of the 2nd joint, the remainder of which is bright golden yellow externally, whitish internally, the apex of the 2nd joint and the apical joint tinged with fuscous. *Maxillary palpi* black. *Head* smooth, metallic-purplish; face lilac. *Thorax* shining purplish fuscous, with two golden yellow lines slightly converging posteriorly. *Fore wings* purplish fuscous, sprinkled with golden yellow scales, especially along the middle of the wing; at the base is a golden yellow band overspread at the extreme base of the costa with purple; at the outer one-fourth of the wing is an ill-defined golden yellow fascia, divided transversely by four or five narrow lines of the dark ground colour, but extending inwards at the middle and along the extreme costal margin; the cilia at the anal angle are slightly ochreous; the whole apex of the wing and the remainder of the cilia purplish fuscous. *Hind wings* transparent, except a broad band along the costal margin, which is pale straw-yellow, the veins immediately below it being marked with bright golden yellow, which also extends narrowly around the abdominal margin for one-third of the wing-length; below the apex the veins and cilia are smoky fuscous, with green and lilac iridescence upon the transparent wing-surface below them. *Under side of fore and hind wings* yellow along the basal half of the costal area, paler below and smoky fuscous beyond. *Abdomen* vermilion, with a broad black band at the anal extremity, and a greyish anal tuft. Under side yellowish. *Legs:* the upper side of the upper half of the tibiæ are tinged with vermilion on golden yellow; spurs and under side pale straw-yellow; tarsal joints broadly banded above with dark fuscous. *Exp. al.* 13 mm.

Imago.—October.

Hab. Bogota (*Lindig*), Santarem (*Mr. J. H. Leech*).

The above description is taken from a male in my collection. The specimen figured on pl. cxxxviii. of the

'Novara Reise' is a female. Walker's types in B. M. are male and female (Wlsm.).

[Pl. vi., fig. 1.]

♂, *fasciata*, Wlk., Cat. Lp. Ins. B. M., VIII., 261 (1856).

"Nigræ; pectus albideum; abdomen ochraceum, basi et apice nigrum; pedes ochracei, nigro fasciati; alæ posticæ sublimpidæ, nigro marginatæ, apud costam testaceæ.

"Black. Pectus whitish. Abdomen ochraceous, black at the base and towards the tip. Hind wings nearly limpid, bordered with black, testaceous along the costa. Length of the body, 2½ lines; of the wings, 5 lines (= 11 mm.).

"a. Para. From Mr. Bates' collection."

[Walker's type in B. M. is a male.—Wlsm.]

[Pl. vi., fig. 2.]

♀, *basalis*, Wlk., Cat. Lp. Ins. B. M., XXXI., 26 (1864).

"Mas.* Nigro-cuprea; antennæ fascia lata alba; thorax ochraceo-bivittatus; pectus et abdomen subtus alba; tibiæ posticæ ochraceo-fasciatæ; alæ anticæ striga basali ochracea; posticæ vitreæ, venis fimbriaque nigris.

"Male.* Blackish cupreous. Antennæ with a broad white band above on the basal half of the slender part. Thorax with an ochraceous stripe on each side. Pectus white. Abdomen white beneath. Hind tibiæ with an ochraceous band. Fore wings with a short ochraceous basal streak. Hind wings vitreous, colourless; veins and fringe black, the latter rather long. Length of the body, 3½ lines; of the wings, 8 lines (= 17 mm.).

"a. Ega. From Mr. Bates' collection."

SNELLENIA, n. g.

Type, ♂. *Snellenia coccinea*, Wlsm.

Antennæ supra dense squamatæ. Palpi ascendentes, recurvi, articulo apicali tenui, acuminato. Haustellum vestitum. Caput et thorax læves. Alæ anticæ anguste elongatæ, apice obtuso, depresso, costa ultra medium aliquot arcuata; venæ duodecim, septimo et octavo a pedicillo communi, ceteris singulis. Alæ posticæ prope basim subhyalinæ, apice rotundato, anguli abdominali distincto, marginibus costali et dorsali subparallelibus; venæ octavo, tertio et quarto a pedicillo communi. Abdomen planum,

[* This is an error; the specimen is a female.—Wlsm.]

fasciculis lateralibus et fasciculo anali conspicuis. Pedes supra calcaria fasciculati.

Antennæ thickly fringed on the upper side, the fringes tapering to the apex. *Labial palpi* ascending, 2nd joint recurved, clothed with coarse scales; apical joint naked, slender, acuminate. *Maxillary palpi* very short. *Haustellum* thickly clothed. *Ocelli* present. *Head and thorax* smooth. *Fore wings* narrow, elongate, rounded at apex; costa arched beyond the middle, depressed before it; *neuration*, 12 veins, 2 and 3 arising from near angle of cell, 7 and 8 from a common stem. *Hind wings* semitransparent at base, rounded at apex, abdominal angle well-developed, costal and dorsal margins almost parallel; *neuration*, 8 veins, end of cell somewhat square, 3 and 4 from a common stem. *Abdomen* flattened, slightly tufted at sides, anal tuft broad and well-developed. *Legs* tufted at base of spurs, but not to the same extent as in *Atkinsonia*.

This genus differs from *Atkinsonia*, Stn., in the greater width of the hind wings, and appears to be more nearly allied to *Tinægeria*, Wlk., and *Arauzona*, Wlk., in this respect, partaking of the characters of *Dasycera*, Hw., and its allies, on the one side, and of *Stathmopoda*, Stn., *Schreckensteinia*, Hb., &c., on the other. Comparing it with undoubtedly allied genera mentioned in this paper, it seems to form a connecting-link between the so-called *Gelechidæ* and the *Elachistidæ*. I entirely agree with the opinion expressed by Mr. E. Meyrick, in a letter to me on this subject, that *Snellenia lineata*, Wlk., from New South Wales, which he regarded as probably allied to *Atkinsonia*, is nearly related to *Dasycera*; but the true *Atkinsonia* from India seems to form a distinct connecting-link between this and the African forms described by Zeller under the genera *Œdematopoda* and *Eretmocera*, which undoubtedly approach *Butalis*, Tr.

Tabulation of the species comprised in the genus *Snellenia*:—

A. Neuration of fore wings more or less outlined with dark scales.
  a. Fore wings orange-yellow.
    1. = *lineata*, Wlk.
    2. = *flavipennis*, F. & R.
  b. Fore wings red.
    1. Tarsi with white rings = *tarsella*, Wlsm.
    2. Tarsi without white rings = *coccinea*. Wlsm.

B. Fore wing spotted or fasciate.
a. Abdomen red, with dark bar and anal segment = *latipes*, Wlk.
b. Abdomen yellow, with two dark bands = *bimaculata*, Wlsm.

[Pl. ii.]

coccinea, n. s.

Alæ anticæ cocciniæ, strigula discali post medium furcata nitide violaceo-fusca; ciliis nigrescentibus. Alæ posticæ nigræ, costa ex basi ultra medium anguste miniata. Capite, antennis, palpis, thorace, abdomine et tibiis nigris.

Antennæ black. *Palpi* black; the basal joint and inner side of lower part of 2nd joint greyish. *Head and thorax* black, the latter somewhat iridescent. *Fore wings* bright scarlet; a small spot at the base of the costa and a more elongate small space at the base of the dorsal margin black; a violaceous-fuscous metallic streak at the end of the cell, about equidistant between the costal and dorsal margins, is bifurcate outwards, and below this a few black scales are traceable along the lines of the veins which run to the lower half of the apical margin; cilia blackish. *Hind wings and cilia* black, the costal margin from the base to beyond the middle rosy pink. *Under side of fore and hind wings* bright red, the apical margin and outer half of fore wings, except the costal portion, obliquely suffused with fuscous, the hind wings with a broad fuscous border extending from the base to the apex around the abdominal and apical margins. *Abdomen and legs* black. *Exp. al.* 15 mm.

Hab. Sikkim.

A single specimen, for which I am indebted to the kindness of Mynheer P. C. T. Snellen, was collected by Mr. H. J. Elwes.

Type, ♂, Mus. Wlsm.

[Pl. vi., fig. 3.]

tarsella, n. s.

Capite nigro. Antennis nigris ultra medium late squamatis. [Palpi et abdomen desunt.] Thorace coccineo. Alis anticis coccineis, nigro venatis, margine dorsali sub plica nigrescenti. Alis posticis dilutioribus, nigro marginatis. Tibiis nigris, tarsis albo annulatis, calcaribus nigris.

Antennæ black, thickly fringed with long scales to beyond the middle. *Palpi* [missing.] *Head* black. *Thorax* deep scarlet. *Fore wings* deep scarlet, the veins marked with lines of blackish

scales; the dorsal margin below the fold also blackish. *Hind wings* rather paler than the fore wings, a broad blackish border wider posteriorly. *Abdomen* [missing.] *Legs* black, with white rings on the tarsi, spurs and tufts black. *Exp. al.* 28 mm.

Hab. Darjeeling.

Type, ♀, B. M.

[Pl. vi., fig. 4.]

lineata, Wlk., Cat. Lp. Ins. B. M., VIII., 261 (1856).

"Nigra; palpi thorace longiores; thorax et abdomen basi ochracea; alæ anticæ ochraceo venosæ, posticæ basi luteæ.

"Black. Palpi longer than the thorax. Thorax and base of the abdomen ochraceous. Hind wings luteous towards the base. Length of the body, 2½ lines; of the wings, 5 lines (=11 mm.).

"a. b. Para. From Mr. Bates' collection."

[Walker's types are male and female. The locality Para is a mistake; the insects were purchased from Argent's collection, and are labelled "Sidney." Other specimens stand in the British Museum collection under the MS. name "*Pegella ægeriella*"; these are labelled "Australia." This species is identical with *Eretmocera? sesioides*, F. & R., also from Sydney.—Wlsm.]

flavipennis, F. & R.

♂, *Eretmocera? flavipennis*, F. & R., Reis. Nov., pl. cxxxviii., 59 (1875).

"♂, Amer. ?"

The only knowledge I have of this species is from the published figure; the shape and general appearance seem to indicate its near alliance to *Snellenia lineata*, Wlk. I should propose to include it provisionally at least in this genus.

[Pl. vi., fig. 5.]

latipes, Wlk., Cat. Lp. Ins. B. M., XXXI., 25 (1864).

"Mas. Viridis; caput subtus pectusque pallide flava; palpi basi pallide flavi; antennæ pubescentes; pedes anteriores flavo notati; tibiæ posticæ rufæ, apice nigræ, calcaribus duobus anticis fimbriatis; alæ anticæ lurido bifasciatæ; posticæ vitreæ.

"Male. Dark metallic-green. Head beneath, proboscis and pectus, pale yellow. Palpi smooth, slender, compressed, curved,

pale yellow at the base, rising high above the vertex; third joint longer than the second. Antennæ pubescent. Coxæ mostly, and anterior femora and biæ partly pale yellow; hind tibiæ long, stout, bright red, black towards the tips; first pair of spurs red, very unequal in length, with a black fringe, which is red towards the base in the shorter spur; hind tibiæ compressed, slightly dilated and fringed along the whole length. Wings narrow, with a broad fringe. Fore wings with two lurid bands; first band near the base broader than the second, which is at two-thirds of the length. Hind wings hyaline, colourless. Length of the body, 5 lines; of the wings, 10 lines (= 21 mm.).

"a. Para. From Mr. Bates' collection."

[Pl. vi., fig. 6.]

bimaculata, Wlsm., n. s.

Antennæ yellow at the base, fringed with long deep purple scales beyond (the ends being broken off it is impossible to say how far this clothing extends). *Palpi* long, slender, recurved, yellow. *Head and thorax* smooth, shining, bronzy purple. *Fore wings* bright golden yellow, overspread with shining brownish purple at the base; the apical portion of the wing broadly brown, with a purplish lustre, this colour extending one-third along the dorsal margin; a brilliant metallic lilac spot lies at the end of the cell, and touches at its lower edge the inner extremity of the brown shading; this spot is preceded by a smaller spot of the same colour before the middle of the wing, both very conspicuous upon the golden yellow ground colour. *Hind wings* bright golden yellow, with a broad brown marginal band extending from the apex nearly to the abdominal angle, which is slightly transparent. *Abdomen* golden yellow, with a narrow brown transverse band across the middle, and a wider one of the same colour near the anal extremity. *Exp. al.* 16 mm.

Hab. Sandakan (*Mr. H. J. S. Pryer*).

Type, ♀, Mus. Wlsm.

Pseudægeria, n. g.

Type. *Ochsenheimeria? squamicornis*, F. & R.

Caput lævis. Palpi recurvi, articulo secundo æqualiter vestito, articulo apicali tenue, acuminato. Antennæ dense vestitæ, squamis elongatis, serrate congestis. Haustellum longum. Alæ anticæ elongatæ, marginalibus costali et dorsali parallelibus, apice de-

presso; venæ apicali furcata, ceteris singulis. Alæ posticæ lanceolatæ, margine costali in medio arcuato apice obtuso, dimidio dorsali subhyalinis; venis tertia et quarta a pedicillo communi, sexta et septima simillimis. Tibiæ posteriores supra calcaria floccatæ.

Antennæ thickly clothed with erect scales from near the base, arranged in groups of unequal length, giving a strongly serrated appearance. *Palpi* recurved, 2nd and apical joints about equal in length, the former evenly clothed throughout, the latter slender, erect, acuminate. *Head and thorax* smooth. *Fore wings* elongate, margins parallel, apex depressed; *neuration*, 12 veins, 7 and 8 from a common stem, the rest separate, 3 and 4 approximate at base, 3 from or near angle of cell. *Hind wings* lanceolate, abdominal angle rather abrupt, costal margin slightly arched in the middle, somewhat widened at the anal angle; somewhat transparent about the dorsal and abdominal area; *neuration*, 8 veins, 3 and 4 from a short stem, 6 and 7 from a common point, 2 from outer third of cell. *Abdomen* somewhat flattened, fringed posteriorly with projecting lateral scales. *Legs* strongly tufted above the spurs.

[Pl. iii.]

squamicornis, F. & R.

♀, *Ochsenheimeria? squamicornis*, F. & R., Reis. Nov., pl. cxxxix., 6 (1875).

"♀, ins. vitianæ, Australia? (M. C.)."

Capite nigro. Thorace nigro, sparse aurantiaco squamato, patagiis rufo-aurantiacis. Palpis nigris. Antennis nigris, dentate squamatis. Alis anticis elongatis, dimidio costali rufo-aurantiaco, dorsali nigro, margine apicali usque ad apicem anguste nigro; ciliis brunneis. Alis posticis apud marginem abdominalem albide subhyalinis, apud costam dilute aurantiaco suffusis, margine dorsali late brunneo; ciliis brunneis. Abdomine antice brunneo, postice nigro, linea transversa angustissime post medium albida. Tibiis nigris, calcaribus albidis.

Antennæ thickly fringed near the base with unequal tufts of long glossy black scales with a purplish tinge, having a dentated appearance. *Palpi* black, recurved, reaching well above the head; 2nd joint evenly clothed throughout, apical joint about equal to it in length, very slender and erect. *Head and thorax* glossy black, the latter streaked with reddish orange, a collar of smooth blackish purple scales extending over the anterior margin of the thorax; patagia reddish orange. *Fore wings* reddish orange on the costal half, glossy black on the dorsal half, a narrow semi-detached black

streak is scarcely divided from the black dorsal half, blending with it beyond the middle, the black is continued around the apical margin at the base of the cilia as far as the apex; cilia also dark, but with a slight brownish gloss. Under side pale reddish orange, suffused with brown within the anal angle. *Hind wings* whitish about the base of the abdominal margin, inclining to transparency, suffused with orange-yellow towards the costal margin, a broad band of brown along the dorsal margin towards the apex; cilia glossy brown. Under side pale reddish orange, suffused with brown around the dorsal margin. *Abdomen :* the anterior portion is dark brown, separated from the glossy black anal segments by a very narrow whitish line behind the middle, posteriorly fringed with projecting glossy brownish scales adjoining the anal tuft. Under side blackish. *Legs* glossy black, with strong tufts of scales above the spurs; spurs white. *Exp. al.* 21 mm.

Hab. Fiji (*F. & R.*), Australia (B. M.), 66, 125.

This description is taken from the British Museum specimen, which is also a ♀.—Wlsm.

ŒDEMATOPODA, *Z.* = ATKINSONIA, *Stn.*

ŒDEMATOPODA, *Z.*

Eretmocera (A) *Oedematopoda*, Z., Handl. Kong. Svensk. Ak., 1852, 96.

Type, ♀. *Œdematopoda princeps*, Z.

"*Eretmocera.*

"*Char. essent.*—Caput læve. Antennæ uno latere squamis piliformibus alatæ, apice nudo. Alæ elongatæ.

"*Char. nat.*—Antennæ uno latere dense squamato-pilosæ, pilis sensim longitudine acutis, apice nudo. Capilli appressi, fronte rotundata. Palpi labiales mediocres, recurvi, articulo terminali longiore, tenui acuto. Haustellum mediocre spirale. Alæ elongatæ ciliis longis, posteriorum angulo anali subnullo. Abdomen breviusculum, crassum, planiusculum. Pedes robusti, tibiarum spinæ longiusculæ.

"(A) *Oedematopoda.*—Antennæ apice breviter nudo, pilis longis. Pedes medii et postici in articulorum apicibus squamato-nodosi, spinis uno latere pilosis. Abdominis latera non squamis marginatum.

"Genus hoc *Oecophoræ* eam partem, quæ *esperellam*, *seleniellam*, *chenopodiellam*, etc. continet, cum *Elachistis æretella*, *modestella*, etc. conjungere videtur. Distinguitur ab utrisque antennis non

simplicibus, sed a basi ultra medium in latere exteriore pilosis, palpis longioribus, abdomine latiore."

= Atkinsonia, *Stn.*, Trans. Ent. Soc. Lond. (n. s.), V., 125 (1859).

Type. *Atkinsonia clerodendronella*, Stn.

"Head smooth, broad, flat; labial palpi long, slender, recurved, terminal joint rather longer than the second joint. Antennæ stout, clothed on one side with long loose scales nearly to the tip. Anterior wings broadest beyond the middle, the costa being at first slightly concave; posterior wings narrow and pointed. Abdomen broad, depressed, with long scales at the side. Legs, especially the hind pair, with long tufts of scales.

"A singular and beautiful genus, belonging to the family *Elachistidæ*."

Tabulation of the species comprised in the genus *Œdematopoda*:—

A. Fore wings yellowish, with black apex = *princeps*, Z.
B. Fore wings unicolorous.
  a. Fore wings cupreous = *clerodendronella*, Stn.
  b. Fore wings red.
    1. Head and antennæ purplish = *ignipicta*, Btl.
    2. Head and antennæ red = *leechi*, Wlsm.

[Pl. iv.]

princeps, Z., Handl. Kong. Svensk. Ak., 1852, 96—7.

"Abdomine aurantiaco, apice nigro; pedibus chalybeo-nigris; alis ex basi aurantiacis, postice nigris, ciliis posteriorum a basi ad medium aurantiacis (♀). Magnitudine *Oec. cuspidellæ* minoris, sequentibus major. Caput violaceo-nigrum, fronte lata. Palpi thoracis longitudine, recurvi, graciles; articulo primo et secundo ochraceis, secundo squamis subincrassato, basim versus attenuato; terminali secundi longitudine, tenui, acuto, fusco. Haustelli dorsum ad basim squamis exalbidis tectum. Antennæ abdominis fere longitudine, latere exteriore dense pilosæ, pilis nigris, chalybeo-nitidis, paulatim magnitudine accrescentibus, ante antennarum ultimam octavam fere partem abrupte desinentibus; hæc pars terminalis nuda est, nigra, subserrata. Thorax lævigatus, niger, nitidulus. Patagia miniata, margine exteriore latius violaceo nigro. Pedes nigri, chalybeo-coerulei instar nitidi; anticorum coxæ et posticorum tibiæ ad basim miniatæ. Tibiæ tarsique pedum

posteriorum crassi; tibiæ posticæ quater squamis setisque incrassatæ, nodis apicem versus majoribus; spinæ uno latere pilis ciliatæ, apice nudo, acuto; tarsi postici et ipsi in articulorum apicibus squamis nonnihil tumidi, primo tumore reliquis distinctiore. Abdomen crassum, postice attenuatum, saturate aurantiacum; segmenta duo terminalia sicut venter nigra, violaceo-nitida; segmentum anale subconicum, truncatum oviductum testaceum exserit. Alæ anteriores 3½‴ longæ, ex basi angusta sensim dilatatæ, apice subobtusæ, aurantiacæ, majore parte postica nigræ, violaceo-nitidulæ. Color aurantiacus ad costam multo longius quam ad dorsum propagatur, nusquam a nigro certis finibus separatus. In humero macula parva nigra adest. Cilia nigricant. Alæ posteriores anguste lanceolatæ, dilutius aurantiacæ, circa apicem acutum nigricant. Cilia ex basi ad marginis postici medium alis concolora, deinde omnino fusco-nigra. Subtus iidem colores, nisi quod aurantiacus in anterioribus alis majus spatium occupat nec in basi macula nigra inquinatur.

"Habitat in terra Natalensi." (Exp. al. 16 mm.).

It is worthy of notice that a specimen collected by Woodford in the Solomon Islands, and now in the British Museum, is so like this species as to be easily taken for it by a superficial observer. It is, however, somewhat larger, but possesses the same colouring, except that the dark cilia of the hind wings extend more towards the base. The body is rather black than yellow; the structure of the legs, even to the conspicuous fringes on the spurs, is precisely the same as in *Œdematopoda princeps*; the hind wings are certainly somewhat wider towards the apex, but the following characters seem to me to suffice to remove it, for the present at least, from the neighbourhood of all the genera treated of in this paper. Instead of the long recurved palpi possessed by all of these, it has extremely short, inconspicuous, drooping labial palpi of entirely different structure; moreover, the apical vein of the fore wings is not forked.

[Pl. vi., fig. 7.]

clerodendronella, Stn., Trans. Ent. Soc. Lond. (n. s.), V., 125—6 (1859).

"Alis anticis cupreo-rufis; alis posticis dilutioribus, griseo-ciliatis. Exp. al. 6—6½ lin. (= 13—14 mm.).

"Head and face purple. Second joint of the palpi reddish

orange; terminal joint purple. Antennæ purple-black, densely clothed along one side with long purple-black scales. Anterior wings brilliant coppery red, with the cilia greyish. Posterior wings reddish orange, with grey cilia. Thorax coppery red. Abdomen blue-black, with a slender whitish belt nearly in the middle. Legs black spotted with white; the hind legs with the spines replaced by thick tufts of black scales*; the tarsi also much thickened with black scales.

"Larva dirty brown; head dark reddish brown; second segment black. It feeds in the tops of *Clerodendron*, drawing together the leaves with a white web.

"The perfect insects made their appearance on the 27th July, 1856; the insect, when at rest, erects its beautifully plumed hind legs above its back, behind the head, and keeps constantly vibrating its incrassated antennæ.

"Collected near Calcutta by Mr. Atkinson."

[Pl. vi., fig. 8.]

ignipicta, Btl., Trans. Ent. Soc. Lond., 1881, 593—4.

[Capite thorace et antennis purpureis. Alis anticis rubidis, subpurpurascentibus, basi et margine costali peranguste purpureo, margine dorsali ante angulam analem latiore purpureo; ciliis fuscis. Alis posticis brunneis; ciliis griseo-fuscis. Abdomine et tibiis purpureis.—Wlsm.]

"Purplish black; primaries with a very broad carmine subcostal streak from near the base to the outer margin, where it meets a narrow stripe of the same colour, which runs round the margin half-way to the base; secondaries dark bronzy brown; head shining, smooth, plumbageous; thorax showing fiery cupreous points in certain lights; abdomen with extremely narrow orange posterior margins to the segments; under surface bronzy brown; primaries cupreous towards the base, purplish towards the apex, and with purple costal margin; pectus, as seen between the large coxæ, brilliant opaline; legs slightly opaline along the centre of the inferior margins; the long setose antennæ, and the spines and bristles upon the legs, black; expanse of wings, 8 lines (= 17 mm.)

"Tokei (*Fenton*).

"A very beautiful little species of this singular genus."

Since this paper was written Mr. H. Druce has kindly

* See *ante*, p. 5.

given me a specimen of a species of Œ*dematopoda* almost undistinguishable from *ignipicta*. It differs in the more streaked appearance of the fore wings; the dorsal margin is not uniformly black, the base of the wing being also decidedly red, not black; two lines of black scales are visible above the fold, but the specimen is not in condition to be described as the type of a new species. It was collected by Mr. W. Doherty at Perak, thus extending our knowledge of the geographical distribution of this interesting genus.

[Pl. vi., fig. 9.]

leechi, n. s.

Capite rufo, fronte violaceo-fusco. Thorace antice rufo, postice violaceo-fusco. Antennis dense et late pilosis rufis, apice et basi violaceo-fuscis. Alis anticis rufis, angustissime violaceo-fusco marginatis; linea subdorsali ex basi per plicam violaceo-fusca; ciliis fuscis. Alis posticis cupreo-brunneis; ciliis dilute fuscis. Abdomine fusco-purpureo. Tibiis posticis violaceo-fuscis.

Antennæ red along the middle, but with the base and apex purplish fuscous, with an erect fringe of very long scales, corresponding in colour to the part from which it rises, the extreme apical joints only naked. *Palpi* slender, recurved, pale bronzy fuscous above, greyish fuscous beneath. *Haustellum* greyish fuscous. *Head* red above; face violaceous-fuscous. *Thorax* red, tending to violaceous-fuscous posteriorly. Under side shining greyish fuscous. *Fore wings* red, very narrowly margined with purplish fuscous by a slender line along the extreme costal and dorsal margins, but not reaching to the apex; a streak of similar colour extends from the base across the fold, vanishing above the anal angle; cilia fuscous. Under side violaceous. *Hind wings* brownish cupreous, with fuscous cilia, the extreme base at the abdominal angle transparent. Under side shining pale fuscous. *Abdomen* deep purple, with a narrow paler spot at the base. Under side purple. *Legs* tinged with purple, with long spurs, and also fringed with purplish scales, having tufts of purplish scales above at the joints, *Exp. al.* 15 mm.

Hab. Satsuma, Japan, May, 1886 (*Mr. J. H. Leech*).

Type, ♂, Mus. Wlsm.

This species differs from *ignipicta*, Btl., to which it is nearly allied, in the beautiful red-fringed antennæ, and in the red head and thorax, which in that species are

purplish, and also in the brighter red of the anterior wings.

ERETMOCERA, *Z.* = STAINTONIA, *Stgr.* = EXODOMORPHA, *Wlk.* = CASTORURA, *Meyr.*

Eretmocera (B) *Eretmocera*, Z., Handl. Kong. Svensk. Ak., 1852, 96.

(ἐρετμός, remus ; κέρας, antenna).

Type, ♂ ♀ . *Eretmocera fuscipennis*, Z.

"*Eretmocera.*

"*Char. essent.*—Caput læve. Antennæ uno latere squamis piliformibus alatæ, apice nudo. Alæ elongatæ.

"*Char. nat.*—Antennæ uno latere dense squamato-pilosæ, pilis sensim longitudine acutis, apice nudo. Capilli appressi, fronte rotundata. Palpi labiales mediocres, recurvi, articulo terminali longiore, tenui, acuto. Haustellum mediocre spirale. Alæ elongatæ ciliis longis, posteriorum angulo anali subnullo. Abdomen breviusculum, crassum, planiusculum. Pedes robusti, tibiarum spinæ longiusculæ.

"(B) *Eretmocera.*—Antennæ paulo ultra medium usque pilosæ, pilis brevioribus. Pedes squamis non nodosi. Abdomen utrinque squamis marginatum.

"Genus hoc *Oecophoræ* eam partem, quæ *esperellam*, *seleniellam*, *chenopodiellam*, etc. continet, cum *Elachistis æratella*, *modestella*, etc. conjungere videtur. Distinguitur ab utrisque antennis non simplicibus, sed a basi ultra medium in latere exteriore pilosis, palpis longioribus, abdomine latiore."

= STAINTONIA, *Stgr.*, Stett. Ent. Zeit., XX., 250 (1859).

Type, ♂ ♀ . *Staintonia medinella*, Stgr.

"Caput obtusum, squamis appressis. Ocelli nulli.* Antennae crassae, in ♂ pubescenti-ciliatae. Palpi labiales adscendentes, recurvi, acuminati. Haustellum longum, basi squamatum. Alae anteriores elongatae ; posteriores angustissime lanceolatae, cellula media aperta, costa media interiore tripartita, costa media exteriore tripartita. Abdomen depressum, squamis lateralibus erectis.

"Dem genus *Butalis* am nächsten; besonders durch den von oben nach unten sehr stark zusammengedrückten Leib, dessen Ränder durch grosse seitlich abstehende Schuppen gezähnt erscheinen, verschieden. Die Fühler sind bedeutend dicker als

* This is an error. I find ocelli present in my specimens received from Dr. Staudinger.

bei allen mir bekannten Butalis-Arten. Der Rippenverlauf ist gleichfalls verschieden, namentlich auf den Hinterflügeln, wo die Mittelzelle ganz offen ist. Die innere Mittelrandsrippe theilt sich in drei, die äussere in zwei Aeste. Genaueres werde Ich später geben."

♂ ♀ = EXODOMORPHA, *Wlk.*, Cat. Lp. Ins. B. M., XXIX., 833 (1864).

Type. *Exodomorpha divisella*, Wlk.

"♂ ♀. Corpus robustum. Proboscis brevis. Palpi læves, arcuati, ascendentes, capitis latitudine longiores. Antennæ subincrassatæ, apices versus subfimbriatæ. Abdomen ales posticas longissime superans. Pedes læves, validi; tibiæ posticæ calcaribus longis approximatis. Alæ anticæ perangustæ, apice rotundatæ; posticæ longissime fimbriatæ.

"Body stout. Proboscis short. Palpi smooth, curved, rising a little higher than the vertex, longer than the breadth of the head; third joint setiform, shorter than the second. Antennæ shorter than the fore wings, slightly incrassated, except towards the tips, slightly fringed at the end of the incrassated part. Abdomen extending for three-fourths of its length beyond the hind wings. Legs stout, smooth; hind tibiæ with four long approximate spurs. Wings very narrow. Fore wings rounded at the tips; costa straight; exterior border extremely oblique. Hind wings with a very long fringe."

= CASTORURA, *Meyr.*, Proc. Linn. Soc. N. S. W. (2nd ser.), i., 1047 (1887).

Type, ♀. *Castorura chrysias*. Meyr.

"Head smooth; ocelli present; tongue well-developed. Antennæ almost as long as the fore wings, basal half thickened with scales, becoming long and roughly projecting on back towards middle, basal joint elongate, rather dilated terminally, without pecten. Labial palpi moderate, curved, ascending, slender, loosely rough-scaled beneath throughout, terminal joint almost as long as second, acute. Maxillary palpi obsolete.* Abdomen (in ♀) very broad, flattened; apical segment with lateral tufts of scales. Posterior tibiæ smooth-scaled, spurs long, tarsi somewhat rough beneath. Fore wings elongate-lanceolate; vein 1 simple, 2 from ¾ of cell, 6 and 7 stalked, 7 to costa, 8 absent, 9 from near 7, 11

* The maxillary palpi are so minute as to be easily overlooked, but they are visible under a microscope.

from ¾. Hind wings ¾, elongate-lanceolate, cilia 2; costa towards base with a fringe of rough scales drawn over wing; veins 2, 3, 4, 5 equidistant and parallel, 6 and 7 approximated at base."

Tabulation of the species comprised in the genus *Eretmocera*:—

A. Fore wings unicolorous.
  a. Hind wings yellow = *derogatella*, Wlk.
  b. Hind wings red.
    1. Fore wings brown = *fuscipennis*, Z.
    2. Fore wings purple = *carteri*, Wlsm.
B. Fore wings 3-spotted = *lætissima*, Z.
C. Fore wings with two spots and a streak.
  a. Streak straight, medio-basal.
    1. Streak clear and distinct, no black spot on anal segment = *basistrigata*, Wlsm.
    2. Streak indistinct, sometimes obsolete, a black band across anal segment = *scatospila*, Z.
  b. Streak taking the form of a dorsal lunule.
    1. Hind wings red = *miniata*, Wlsm.
    2. Hind wings yellowish.
      a. With a dark bar across anal segment = *dorsistrigata*, Wlsm.
      β. With dark lateral disconnected fascicules on anal segments = *lunifera*, Z.
D. Fore wings 4-spotted.
  a. Spots distinct.
    1. Hind wings brown = *impactella*, Wlk.
    2. Hind wings yellow = *chrysias*, Meyr.
  b. Spots indistinct, the basal pair blended = *medinella*, Stgr.

[Pl. vi., fig. 10.]

fuscipennis, Z.,* Handl. Kong. Svensk. Ak., 1852, 97—9.

"Alis anterioribus brunneis; posterioribus supra fuscescentibus, subtus puniceis, ciliis circa apicem fuscis, ceteris puniceis; abdomine coccineo, macula baseos dorsali segmentoque anali fuscis (♂ ♀).

"Var. *b*, ut *a*, sed colore flavissimo pro puniceo coccineoque ♂.

"Quæ hic sub *Eretmocera* enumero quatuor nomina, utrum ad species diversas vere pertineant an varietates solum unius speciei denotent, persuasum mihi non est. Insectis his eadem omnibus structura, nec differunt fere nisi pictura. Quum vero *E. lætissimæ* specimina quatuor inter se simillime maculata, saltem in alis, comparem, consultius esse opinatus sum, in picturæ differentia

* *fuscipennis*, Z., is now restricted to the red form (var. *a*); the yellow form (var. *b*) = *derogatella*, Wlk.

differentiam specierum agnoscere et tempori futuro relinquere ut me aut confutet aut comprobet.

"Differt *E. fuscipennis* a sequentibus alis anterioribus omnino immaculatis. Caput et thorax brunnea; occiput squamis nonnullis flavis ciliatum est. Palpi recurvi, thoracis longitudine, satis graciles, ad basim et in dorso late albidi, subtus fuscescentes; articulus terminalis præcedenti longitudini subæqualis, multo tenuior, acutissimus. Haustellum in basi crassum ibique ad latera albo squamatum ceterum brunnescit et ad anum fere extendi potest. Antennæ abdominis longitudine, fuscæ, a basi ultra medium in latere exteriore squamis approximatis incrassatum, quæ apicem versus longiores fiunt ac violaceo colore nitent; nuda pars apicalis filiformis, pube tenera ciliata. Feminæ antennæ magis luteo-brunneæ squamisque rarioribus tenuiores; sed eas ut totum animal nonnihil detritas esse adspectus docet; ceterum earum structura eadem quam in mare. Pectus pallide flavum. Pedes brunnei, femora subtus exalbida, tibiæ violaceo-nitidæ; posticæ in dorso ante medium fasciculum pilosum modicum gerunt. Abdomen planum, utrimque squamarum elongatarum ac piliformium fasciculis marginatum, coccineum (in varietate *b* flavissimum) una cum squamis; ad basim macula transversa fusca; segmentum anale nigrum, squamis nonnullis ex ano eminentibus puniceis; valvularum analium margo ochraceus; venter pallide flavus, squamulis fuscescentibus adspersus, macula utrimque ad lateris medium fuscescens irregularis.

"Alæ anteriores ♂ 3‴, ♀ $2\frac{2}{3}$‴ longæ, brunneæ, subnitidulæ, cilia fusca. Subtus violaceo nitent; sub costa reflexa linea ex basi attenuata flava ad mediam alæ longitudinem procurrit, lineaque in disco obsoleta supra angulum dorsalem in varietate *a* conspicitur, quæ varietas *b* caret.

"Alæ posteriores anguste lanceolatæ, valde acutæ, dilute brunneæ, basim versus dilutiores ibique squamis pallide puniceis (in var. *b* flavidis) immixtis. Subtus puniciæ (var. *b* flavæ), apice ipso fusco. Cilia utriusque paginæ in var. *a* punicea, in var. *b* flava, in utraque varietate circa apicem latius fusca.

"Habitat in tractibus fluviorum Limpoponis et Gariepis." (Exp. al. 16 mm.).

= ♂ ♀, *Exodomorpha inclusella*, Wlk., Cat. Lp. Ins. B. M., XXIX., 834 (1864).

"♂ ♀. Purpureo-cuprea; caput subtus pectorisque latera aurato-flava; abdomen aurato-rufum, basi apice ventreque auratis, macula basali fasciaque subapicali purpureo-cupreis; alæ posticæ auratæ, costa fimbriaque rufis.

"Dark purplish cupreous. Head beneath and sides of the thorax pale gilded yellow. Abdomen gilded red, with a purplish cupreous spot near the base, which is gilded; a purplish cupreous subapical band; tip and under side gilded. Hind wings gilded; costa and fringe red, the latter blackish cupreous towards the tip. Length of the body, $2\frac{3}{4}$ lines; of the wings, $5\frac{1}{2}$ lines (= 12 mm.).

"*E. divisella*, var.?

"a. Port Natal. From M. Gueinzius' collection. b. South Africa. From Mr. Argent's collection."

Type, ♂ ♀, B. M.

[Pl. vi., fig. 11.]

carteri, n. s.

Alæ anticæ unicolores, subnitidæ, viride-purpuriæ, ciliis fuscis. Alæ posticæ cupreæ, ciliis ante medium coccineis, post medium fuscis. Abdomine coccineo, macula basali purpureo, apicali nigro. Capite, antennis, thorace, et tibiis purpureo-fuscis.

Antennæ purplish fuscous. *Palpi* purplish fuscous, yellowish at the base externally. *Head* purplish fuscous. *Thorax* greenish, or purplish fuscous above, bright ochreous beneath. *Fore wings* glossy green, or purplish; cilia fuscous. Under side brownish fuscous, tinged with purplish, a slight ochreous streak from the base reaching nearly half-way along the costal margin. *Hind wings* coppery brown; cilia before the middle carmine, beyond it dark fuscous. Under side carmine; cilia fuscous, except at the base of the abdominal margin. *Abdomen* brilliant carmine, tinged with ochreous about the basal portion, a patch at the base rich purple, and the anal segments black fringed with carmine. Under side ochreous. *Legs* dark purplish fuscous. *Exp. al.* 12 mm.

Hab. Bathurst (*Mr. G. T. Carter*).

Type, ♂, Mus. Wlsm.

One of my three specimens from Bathurst, collected by Mr. G. T. Carter, has the anal segments entirely carmine, without any black whatever.

[Pl. vi., fig. 12.]

derogatella, Wlk., Cat. Lp. Ins. B. M., XXIX., 834 (1864).*

"♂. Cuprea; caput subtus pectorisque latera aurato-flava; abdomen aurato-flavum, apice nigrum; alæ posticæ auratæ.

* = *fuscipennis*, Z., var. *b*. (*ante*, pp. 26—7).

"Cupreous. Head beneath and sides of the pectus gilded yellow. Abdomen gilded yellow; tip partly black. Hind wings gilded tip and exterior part of the fringe gilded. Length of the body, $2\frac{3}{4}$ lines; of the wings, $5\frac{1}{2}$ lines (= 12 mm.).

"a. Port Natal. From M. Gueinzius' collection."

Type, ♂, B. M.

[Pl. vi., fig. 13.]

dorsistrigata, n. s.

Capite brunneo. Palpis subflavidis. Antennis violaceo-fuscis. Thorace brunneo. Alis anticis brunneis, subænescentibus, lunula dorsali ante medium, maculisque duabus post medium oppositis, flavidis; ciliis fuscis. Alis posticis dilute brunneis, ænescentibus, in basi subflavidis; ciliis aurantiacis apud apicem fuscis. Abdomine aurantiaco, in basi flavo, macula prope basim purpureo, vittaque anali purpureo apicem non attingente. Tibiis purpureo fuscis.

Antennæ purplish fuscous. *Palpi* pale yellowish above, brownish fuscous beneath, except on the basal one-third. *Head* bronzy brown, a few pale yellow scales separating it from the thorax at the sides. *Thorax* bronzy brown. *Fore wings* bronzy brown, with a pale, oblique, dorsal patch at the basal third, reaching nearly to the middle of the wing, and two opposite on the outer third about equal in size, the first on the costa, the second at the anal angle, all pale lemon-yellow; cilia fuscous. Under side bronzy brown, the extreme costal margin very pale ochreous, a line of orange scales extending from the middle of the base to the anal angle. *Hind wings* golden brown, tending to pale yellowish on the upper part of the costal half, costal cilia pale yellow to beyond the middle; orange-yellow on the dorsal margin for the same distance, thence fuscous around the apex. Under side orange-yellow, thickly sprinkled with vermilion scales; cilia orange-yellow to beyond the base, thence fuscous. *Abdomen* bright yellow at the base, near which is a deep purple bar, not reaching to the sides; below this bar the abdomen is orange, with a wide purplish fuscous band crossing the anal segment, which leaves the anal tuft pale ochreous. Under side whitish. *Legs* purplish fuscous, femora whitish, some wide pale ochreous bands across the tibiæ and tarsi beneath. *Exp. al.* 15 mm.

Hab. Zanzibar (*Mr. F. J. Jackson*).

Type, ♂, Mus. Wlsm.

This species is apparently allied to *lunifera*, Z., figured Trans. Ent. Soc. Lond., 1881, Pl. XIII., 41. It differs

in the bronzy-brown colour of the anterior wings, in the larger oblique yellowish patch on the dorsal margin, further removed from the base, in the yellow base of the abdomen, followed by a dark band, and in the complete dark bar crossing the anal segments; whereas in *lunifera* the lateral fascicules of scales only are dark.

[Pl. vi., fig. 14.]

lunifera, Z., Handl. Kong. Svensk. Ak., 1852, 100.

"Alis anterioribus fuscis, lunula dorsali ante medium punctisque duobus posticis oppositis flavis; posterioribus subtus cum ciliis interioribus flavis; abdomine flavo, ani subtus macula fusca (♀?).

"Speciminis tantum alæ anteriores probe conservatæ sunt. Hæ lunulam dorsalem punctaque duo opposita habent, quibus et a *scatospila* et a *lætissima* distinguuntur.

"Caput et thorax fusca, occipitis, margo flavo-squamatus. Antennæ fuscæ (fractæ), eadem ut in *scatospila* structura esse videntur. Palpi in basi et in dorso flavidi, subtus fuscescentes. Pectus ochraceum. Pedes fusci, femoribus subtus flavidis, tibiis posticis violaceo-nitidis, fusco-spinosis. Abdomen flavum in basi fuscum; fasciculi laterales (plerique desunt) segmentorum postremorum flavi, fasciculus segmenti analis niger apicem ani non attingit; venter pallidior quam dorsum dimidio basali segmentoque anali, exceptis fasciculis lateralibus, nigris.

"Alæ anteriores $2\frac{2}{3}'''$ longæ, fuscæ, signis subcitrinis. Lunula tenuis dorsalis longe ante alæ medium, valde inclinata, dimidiam alæ latitudinem superat. Postice puncta duo perpendiculariter opposita, majus angulo dorsali insidens, minus margini costali.

"Alæ posteriores brunneæ, basim versus dilutiores flavoque mixtæ; cilia flava, circa apicem late fusca.

"Subtus alæ ant. fuscæ, linea flava sub costa replicata brevi. Lunulæ flavæ apex in lineam plicæ transit, quæ supra angulum dorsalem marginem posticum tangit ibique incrassata est. Posteriores flavæ apice breviter fuso; cilia ut supra.

"Habitat ubi præcedens" (in tractibus fluviorum Limpoponis et Gariepis). (Exp. al. 12 mm.).

[Pl. vi., fig. 15.]

miniata, n. s.

Capite violaceo-fusco. Thorace violaceo-fusco, postice flavide bimaculata. Alis anticis purpureo-fuscis, lunula dorsali ante medium, maculisque duabus post medium oppositis flavidis; ciliis fuscis. Alis posticis æneo-purpureis; ciliis miniatis, circa apicem

fuscis. Abdomine miniato, in basi flavo, macula lunulari prope basim purpurea, fasciculis duobus lateralibus segmenti analis nigris. Tibiis violaceo-fuscis.

Antennæ bronzy brown, fringed with purplish scales to beyond the middle. *Palpi* fuscous, whitish at the base. *Haustellum* whitish at the base. *Head* bronzy fuscous, a few yellow scales at the back. *Thorax* bronzy fuscous, with two pale yellow spots at its posterior margin. *Fore wings* purplish fuscous, with three pale yellow spots, the first obliquely curved, extending across the fold from near the base of the dorsal margin to the upper half of the wing; the second and third about the commencement of the apical third of the wing, one costal, the other dorsal and slightly nearer the base, both of equal size; cilia dark fuscous. Under side tinged with golden yellow at the base, bronzy fuscous beyond, with a vermilion streak running along the middle from the base to the anal angle. *Hind wings* bronzy, tinged with golden red at the base; cilia at the basal two-thirds of the costal and dorsal margins carmine, beyond dark fuscous. Under side vermilion; cilia carmine, dark fuscous around the apex. *Abdomen* vermilion, with a yellow band at the base, wider in the middle than at the sides, followed by a dark purple crescent-shaped spot, the anal segments with a tuft of black scales on each side. Under side pale ochreous, with two square-edged lateral patches near the base and a wide bar across the anal segments, purplish fuscous. *Legs* bronzy fuscous above, spurs and under sides pale ochreous. *Exp. al.* 14 mm.

Hab. Zanzibar (*Mr. F. J. Jackson*); Port Natal (*Gueinzius, B. M.*).*

Type, ♂ ♀, Mus. Wlsm.

[Pl. vi., fig. 16.]

Eretmocera scatospila, Z., Handl. Kong. Svensk. Ak., 1852, 99—100.

"Alis anterioribus brunneis, linea ex basi, maculis duabus posticis oblique suboppositis lituraque apicis obsoletis lutescenti-griseis; posterioribus subtus cum ciliis interioribus coccineis; abdomine coccineo, macula baseos dorsali segmentoque anali nigris (♀?).

"Minor quam ♂ præcedentis (*fuscipennis*). Differt ab ea specie alis anterioribus maculatis, a sequentibus (*lunifera* and *lætissima*) maculis obsoletis segmentique analis apice coccineo.

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* This species was confused with *divisella* by Walker (see p. 33).

"Caput et thorax brunnea, occipitis squamæ marginales nonnullæ flavidæ. Antennæ ut in *E. fuscipenni*, sed squamis longioribus incrassatæ, fusco-nigræ. Palporum basis et dimidium basale articuli secundi sordide exalbida, reliqua pars in dorso albida, subtus fuscescens. Pectus flavescit. Pedes luteo-brunnei; spinæ anteriorum pars a luce aversa et tarsorum posticorum articuli subtus colore sunt exalbido; tibiarum posticarum dorsum ex basi ad medium usque flavidum. Abdomen in dorso coccineum; in basi macula nigra, coeruleo-nitida, posterius coarctata segmenta duo occupat. Segmentum anale nigrum, macula apicali vitellina; venter pallide ochraceus, vitta utrimque postice acuminata nigricanti; segmentum anale vitellinum, utrimque late nigrum.

"Alæ anteriores $2\frac{2}{3}$''' longæ, luteo-brunneæ, opacæ, maculas lutescenti-griseas squamis elongatis compositas gerunt. Linea indeterminata hujus coloris e media basi procedens ante mediam alam evanescit. Maculæ duæ posticæ ita oppositæ sunt, ut altera angulum dorsalem impleat, altera costalis apici alæ propior sit. Apex ipse maculam parvam, parum distinctum habet. Præterea squamæ griseæ nonnullæ hic illic sparsæ.

"Alæ posteriores brunnescentes, apice fusco. Cilia ex basi ad medium usque coccinea, deinde fusca.

"Subtus alæ ant. fuscæ. Linea flava sub costa reflexa ex basi ad apicem alæ fere excurrit. Linea altera aurantiaca plicam sequens pone mediam alam incrassata cum dorsi colore flavido cohæret. Posteriores puniceæ, apice solo cum ciliis circumdantibus nigræ.

"Habitat in tractibus fluviorum Limpoponis et Gariepis." (Exp. al. 14 mm.).

[Pl. v.]

Eretmocera basistrigata, n. s.

Alæ anticæ purpureo-fuscæ, striga basali et maculis duabus marginalibus oblique oppositis ochreo-flavis; ciliis fuscis. Alæ posticæ puniciæ, apice et ciliis apicalibus fuscis. Abdomine puniceo. Antennis et tibiis purpureo-fuscis. Palpis ochraceis. Thorace ochreo bistrigato.

Antennæ purple. *Palpi* ochreous, with a fuscous line along the under side of the apical joint, and at the apex of the 2nd joint. *Head* shining bronzy fuscous. *Thorax* shining bronzy fuscous, marked with two lateral bright ochreous streaks, and fringed posteriorly with the same colour, blending with the crimson of the abdomen. Under side shining yellow ochre. *Fore wings* purplish fuscous, with a conspicuous basal streak extending nearly half-way along the middle of the wing, followed by two spots, the larger of

which at the anal angle precedes the smaller on the costal margin; these markings are bright yellow ochre; cilia smoky fuscous. Under side crimson, tinged with fuscous. *Hind wings* crimson, tipped with fuscous; cilia smoky fuscous around the apex, bright carmine along the basal two-thirds of the abdominal margin. Under side similar to the upper. *Abdomen* crimson, the centre of the anal segment sometimes tinged with fuscous, its lateral fringes ochreous. Under side shining yellow ochre, tinged with purple at the base. *Legs* purplish fuscous. *Exp. al.* 13 mm.

Hab. Bathurst, West Africa (*Mr. G. T. Carter*).

Type. ♂, Mus. Wlsm.

[Pl. vi., fig. 17.]

lætissima, Z., Handl., Kong. Svensk. Ak., 1852, 100—1.

"Alis anterioribus brunneis, macula subdorsali ante medium majore duabusque posticis oblique oppositis flavissimis; posterioribus puniceis apice fusco (♂).

"Maculæ alarum anteriorum flavissimæ et majores hanc a præcedentibus distinguunt. Caput et thorax brunnea. Margo occipitis posticus, patagiorum margo interior et apex, maculaque eorum apici contigua flava. Antennæ ut in *scatospila*, squamis violaceo-nitidis. Palpi ut in prioribus. Pectus læte flavo-maculatum. Pedes fusci, ad femorum basim pallide flavi; posticorum femora in uno latere, tibiæ in basi et sub primo spinarum pari pallide flavæ; spinæ earum albidæ. Abdomen supra puniceum, ad basim macula indistincta fusca. Venter flavus. Segmenti analis fasciculis superne puniceus, subtus flavus, interne ater, quo colore pili laterales in uno specimini late tincti sunt.

"Alæ anteriores $2\frac{1}{2}$—$2\frac{3}{4}$''' longæ, obscure brunneæ, sub apicem violaceo-nitidulæ, maculis flavissimis ornatæ. Macula prima oblonge ovata non longe a basi plicam ita occupat, ut major ejus pars dorso alæ quam costæ adjaceat. Maculæ duæ reliquæ minores oblique oppositæ, altera in angulo dorsali, altera in costa apici vicinior.

"Alæ posteriores puniciæ, apice fusco. Cilia punicea, circa apicem late fusca.

"Subtus alæ puniciæ; anteriorum costa cum apice ciliisque omnibus nigra, linea sub costa replicata brevis flava; posteriorum color ut supra.

"Habitat in tractibus fluviorum Limpoponis et Gariepis." (Exp. al. 14 mm.).

= ♂ ♀, *Exodomorpha divisella*, Wlk., Cat. Lp. Ins. B. M., XXIX., 833—4 (1864).

"♂ ♀. Obscure purpureo-cuprea; caput subtus pectorisque latera aurato-flava; abdomen coccineum, basi ventreque aurato-flavis, maculis tribus purpureo-cupreis, fasciis duabus ventralibus purpureis; alæ anticæ guttis tribus flavis; posticæ auratæ, costa fimbriaque rufis.

"Dark purplish cupreous. Head beneath and pectus on each side pale gilded yellow. Abdomen scarlet, with a purplish cupreous spot near the base, which is gilded yellow; a purplish cupreous spot on each side at the tip; under side gilded yellow, with two purplish bands; first band near the base widely interrupted; second subapical entire. Fore wings with three pale yellow dots; first dot discal, near the base; second costal, opposite the third, which is near the end of the interior border. Hind wings gilded; costa and fringe red, the latter blackish cupreous towards the tip of the wing. Length of the body, 2¾ lines; of the wings, 5½ lines (= 12 mm.).

*"a, b. Port Natal. From M. Gueinzius' collection. c—e. Sierra Leone. From Mr. Foxcroft's collection." Type, ♂ ♀, B. M.

[Pl. vi., fig. 18.]

impactella, Wlk., Cat. Lp. Ins. B. M., XXIX., 637—8 (1864). (*Gelechia*, Wlk.).

"Obscure cuprea, subtus albida; abdomen luteum, basi apiceque cupreum; alæ anticæ angustæ, acutæ, lituris duabus posticis, una discali unaque exteriore albidis.

"Dark cupreous, slender, whitish beneath. Palpi slender, much longer than the breadth of the head; third joint setiform, a little shorter than the second. Antennæ smooth, rather stout. Abdomen luteous, dark cupreous towards the base and towards the tip. Wings narrow, acute; fringe long. Fore wings with a whitish streak along the base of the interior border, and with three whitish elongated spots; first spot in the disk before the middle; second on the interior border beyond the middle; third costal nearer the tip; exterior border very oblique. Length of the body, 3½ lines; of the wings, 9† lines (15 mm.).

"a. b. North Hindostan. From Mr. James' collection.

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* These two specimens are *miniata*, Wlsm., the description of *divisella* being evidently taken from the Sierra Leone specimens.

† This is apparently an error for 7‴.

"This species appears to have some affinity to the *Ægeriidæ*."

Type, ♂, B. M.

A single specimen in the British Museum from North India, not in sufficiently good condition for description, is closely allied to *impactella*. It has a very faint indication of two dorsal yellowish spots on its unicolorous brownish fore wings. The purple band on the yellow abdomen is wider than in *impactella*, and stretches farther downwards.

[Pl. vi., fig. 19.]

chrysias, Meyr., Proc. Linn. Soc. N. S. W. (2nd ser.), I., 1047—8 (1887).

[Capite et thorace ænescenti-fuscis. Antennis purpureo-fuscis. Alis anticis purpureis, maculis quatuor flavis, duabus dorsalibus, tertiæ subcostali, quarta costali ante apicem; ciliis fuscis. Alis posticis ænescenti-flavidis; ciliis flavidis, partem griseo-fuscis. Abdomine aurantiaco, fascia prope basim purpurea, segmento anali purpureo-fusco.—Wlsm.]

"♀, 15 mm. Head, palpi, antennæ, thorax, and legs dark purplish fuscous; palpi yellow-whitish towards base; thorax with posterior extremity orange. Abdomen orange-yellow, anal segment purple-blackish, except apex. Fore wings purple-black, with four roundish yellow spots; first on inner margin towards base; second largest, in disc before middle; third on inner margin before anal angle; fourth on costa beyond third; cilia purple-black. Hind wings yellow, apical fourth dark purple-fuscous; cilia dark grey, towards anal angle yellowish.

"Maryborough, Queensland; one specimen (coll. *Macleay*)."

[Pl. vi., fig. 20.]

medinella, Stgr., Stett. Ent. Zeit., XX., 250—1 (1859).

"Alis anterioribus aeneo-fuscis, fasciis duabus albidis; alis posterioribus fuscis; abdomine plus minusve lateritio, ano caeruleo-nigro, ♂ ♀, 10—12 mm.

"Vorderflügel erzschillernd braun mit weisslichen Schuppen mehr oder weniger gemischt, und mit zwei weisslichen, nicht scharf begrenzten Querbinden, die eine bei $\frac{1}{3}$, die andere vor dem Aussenrande. Letztere macht in der Mitte eine bedeutende Biegung. Hinterflügel dunkel. Der Leib roth, namentlich bei

den Weibchen. Der After bleibt stets und die ersten Segmente meistens nach oben blauschwarz.

" Kalisch entdeckte diese Art in Juni bei Chiclana auf den Blüten von Umbelliferen sitzend."

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TINÆGERIA, *Wlk.*

Cat. Lp. Ins. B. M. VIII. 260 (1856); Wlsm. ante 10—11 (1889).
Type *Tinægeria ochracea* Wlk.

[= ARAUZONA Wlk. Cat. Lp. Ins. B. M. XXXI. 25—6 (1864); Wlsm. ante 8—9, 11 (1889). Type *Arauzona basalis* Wlk.]

♂ ♀ **ochracea** Wlk. Cat. Lp. Ins. B. M. VIII. 260 (1856); Wlsm. ante 11—13, Pl. i. (1889).
= *Eretmocera ? œneiceps* F. & R. Reise Novara, pl. cxxxviii. 62 (1875); Wlsm. ante 9, 12 (1889).
(*Type* ♀ *? Vienna*).
Imago, October.
Hab. S. AMERICA—Para, Bogota, Santarem.
(*Type* ♂ ♀ *B. M.*)

♂ **fasciata** Wlk. Cat. Lp. Ins. B. M. VIII. 261 (1856); Wlsm. ante 13, Pl. vi. 1 (1889).
Hab. S. AMERICA—Para.
(*Type* ♂ *B. M.*)

♀ **basalis** Wlk.
Arauzona basalis, Wlk. Cat. Lp. Ins. B. M. XXXI. 26 (1864); Wlsm. ante 8—9 (1889).
Tinægeria basalis, Wlsm. ante 13, Pl. vi. 2 (1889).
Hab. S. AMERICA—Ega.
(*Type* ♀ *B. M.*)

SNELLENIA, *Wlsm.*, g. n.

ante 13—15 (1889). Type *Snellenia coccinea*, Wlsm.

♂ **coccinea** Wlsm sp. n. ante 15, Pl. ii. (1889).
Imago, July.
Hab. INDIA—Sikkim.
(*Type* ♂ *Mus. Wlsm.*)

♀ **tarsella** Wlsm. sp. n. ante 15—16, Pl. vi. 3 (1889).
Hab. INDIA—Darjeeling.
(*Type* ♀ *B. M.*)

♂ ♀ **lineata** Wlk.

Tinægeria lineata Wlk. Cat. Lp. Ins. B. M. VIII. 261 (1856); Wlsm. ante 8, 9—10 (1889).
Snellenia lineata Wlsm. ante 16, Pl. vi. 4 (1889).
= *Eretmocera ? sesioides* F. & R. Reise Novara, pl. cxl. 22 (1875); Wlsm. ante 9—10 (1889).
(*Type* ♀ *? Vienna*).
Imago, February.
Hab. Australia—Sydney.*
(*Type* ♂ ♀ *B. M.*)

♂ **flavipennis.**

Eretmocera ? flavipennis F. & R. Reise Novara, pl. cxxxviii. 59 (1875); Wlsm. ante 9—10 (1889).
Snellenia flavipennis Wlsm. ante 16 (1889).
Hab. (S. America ?).
(*Type* ♂ *? Vienna*).

♂ ♀ **latipes** Wlk.

Tinægeria latipes Wlk. Cat. Lp. Ins. B. M. XXXI. 25 (1864); Wlsm. ante 8 (1889).
Snellenia latipes, Wlsm. ante 16—17, Pl. vi. 5 (1889).
Hab. S. America—Para, Maranon.
(*Type* ♂ *B. M.*)

♀ **bimaculata** Wlsm. sp. n. ante 17, Pl. vi. 6 (1889).

Hab. Borneo—Sandakan.
(*Type* ♀ *Mus. Wlsm.*)

PSEUDÆGERIA *Wlsm.* g. n.

ante 17—18 (1889). Type, *Ochsenheimeria ? squamicornis* F. & R.

♀ **squamicornis** F. & R.

Ochsenheimeria ? squamicornis F. & R. Reise Novara, pl. cxxxix. 6 (1875); Wlsm. ante 18 (1889).
Pseudægeria squamicornis, Wlsm. ante 18—19, Pl. iii. (1889).
Hab. Fiji, Australia.
(*Type* ♀ *? Vienna*).

ŒDEMATOPODA *Z.*

Handl. Kong. Svensk. Ak., 1852, 96; Wlsm, ante 19—20 (1889).

Type *Œdematopoda princeps* Z.

[= Atkinsonia Stn. Trans. Ent. Soc. (n. s.) V. 125 (1859); Wlsm. ante 9, 20 (1889). Type *Atkinsonia clerodendronella* Stn.]

♂ ♀ **princeps** Z. Handl. Kong. Svensk. Ak. 1852, 96—7; Wlk. Cat. Lp. Ins. B. M. xxix. 707 (1864); Wlsm. Trans. Ent. Soc. 1881, 271: ante 20—1, Pl. iv. (1889).

Hab. Africa—Natal.
(*Type* ♀ *Stockholm Mus.*)

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* Walker's locality "Para" is an error; the types are from Sydney, purchased from Argent.

♂ **clerodendronella** Stn.

Atkinsonia clerodendronella Stn. Trans. Ent. Soc. (n. s.) V. 125—6 (1859); Wlk. Cat. Lp. Ins. B. M. XXX. 900 (1864); Moore P. Z. S. 1867, 672; Wlsm. ante 9 (1889).

Œdematopoda clerodendronella Wlsm. ante 21—2, Pl. vi. 7 (1889).

Larva. On tops of *Clerodendron*, drawing together the leaves with a web.

Imago, July.

Hab. India—Calcutta.

(*Type*, *Mus. Stn.*)

♂ ♀ **ignipicta** Btl.

Eretmocera ignipicta Btl. Trans. Ent. Soc. 1881, 593—4; Wlsm. ante 9 (1889).

Œdematopoda ignipicta Wlsm. ante 22, Pl. vi. 8 (1889).

Hab. Japan—Tokei, Yesso.

(*Type*, *B. M.*)

♂ **leechi** Wlsm., sp. n., ante 23—4, Pl. vi. 9 (1889).

Imago, May,

Hab. Japan—Satsuma.

(*Type* ♂ *Mus. Wlsm.*)

ERETMOCERA *Z.*

Handl. Kong. Svensk. Ak. 1852, 96; Wlsm. ante 24, 26 (1889).

Type *Eretmocera fuscipennis*, Z.

[= Staintonia Stgr. Stett. Ent. Zeit. XX. 250 (1859); Wlsm. Trans. Ent. Soc. 1881, 271: ante 9, 24—5 (1889). Type, *Staintonia medinella* Stgr.]

[= Exodomorpha Wlk. Cat. Lep. Ins. B. M. XXIX. 833 (1864); Wlsm. Trans. Ent. Soc. 1881, 271: ante 9, 25 (1889). Type, *Exodomorpha divisella* Wlk.]

[= Castorura Meyr. Proc. Linn. Soc. N. S. W. (2nd s.) i. 1047 (1887); Wlsm. ante 9, 25—6 (1889). Type, *Castorura chrysias* Meyr.]

♂ ♀ **fuscipennis** Z.

Eretmocera fuscipennis (var. *a*) Z. Handl. Kong. Svensk. Ak. 1852, 97—8; Wlk. Cat. Lp. Ins. B. M. XXIX. 707 (1864); Wlsm. Trans. Ent. Soc. 1881, 271—2; ante 26—7, Pl. vi. 10 (1889).

= *Eretmocera inclusella*, Wlk. Cat. Lp. Ins. B. M. XXIX. 833—4 (1864); Wlsm. Trans. Ent. Soc. 1881, 271—2; ante 27—28 (1889).

(*Type* ♂ ♀ *B. M.*)

Hab. Africa—Limpopo-Gariep District, Port Natal, Bathurst (*Gambia*).

(*Type* ♂ ♀ *Stockholm Mus.*)

♂ **carteri** Wlsm. sp. n. ante 28, Pl. vi. 11 (1889).

Hab. Africa—Bathurst (*Gambia*).

(*Type* ♂ *Mus. Wlsm.*)

♂ ♀ **derogatella** Wlk.

Exodomorpha derogatella Wlk. Cat. Lp. Ins. B. M. XXIX. 834 (1864); Wlsm. Trans. Ent. Soc. 1881, 271—2: ante 28—29, Pl. vi. 12 (1889).

= *Eretmocera fuscipennis* (var. b.) Z. Handl. Kong. Svensk. Ak. 1852, 97—8; Wlsm. Trans. Ent. Soc. 1881, 271—2: ante 26—7 (1889).

(*Type* ♂ ♀ *Stockholm Mus.*)

Hab. Africa—Limpopo-Gariep District, Port Natal, Zanzibar.

(*Type* ♂ *B. M.*)

♂ **dorsistrigata** Wlsm. sp. n. ante 29—30, Pl. vi. 13 (1889).

Hab. Africa—Zanzibar.

(*Type* ♂ *Mus. Wlsm.*)

(♀?) **lunifera** Z. Handl. Kong. Svensk. Ak. 1852, 100—1; Wlk. Cat. Lp. Ins. B. M. XXIX. 708 (1864); Wlsm. Trans. Ent. Soc. 1881, 272, Pl. xiii. 41: ante 30, Pl. vi. 14 (1889).

Hab. Africa—Limpopo-Gariep District, Natal?.

(*Type* (♀?), *Stockholm Mus.*)

♂ ♀ **miniata** Wlsm. sp. n. ante 30—1, Pl. vi. 15 (1889).

Hab. Africa—Zanzibar, Port Natal.

(*Type* ♂ ♀ *Mus. Wlsm.*)

♂ ♀ **scatospila** Z. Handl. Kong. Svensk. Ak. 1852, 99—100; Wlk. Cat. Lp. Ins. B. M. XXIX. 708 (1864); Wlsm. Trans. Ent. Soc. 1881, 272: ante 31—2, Pl. vi. 16 (1889).

Hab. Africa—Limpopo-Gariep District, Bathurst and Accra (*Gambia*).

(*Type* (♀?), *Stockholm Mus.*)

♂ **basistrigata** Wlsm. sp. n. ante 32—33, Pl. v. (1889).

Hab. Africa—Bathurst (*Gambia*).

(*Type* ♂ *Mus. Wlsm.*)

♂ ♀ **lætissima** Z. Handl. Kong. Svensk. Ak. 1852, 100—1; Wlk. Cat. Lp. Ins. B. M. XXIX. 708 (1864); Wlsm. Trans. Ent. Soc. 1881, 272: ante 33, Pl. vi. 17 (1889).

= *Exodomorpha divisella*, Wlk. Cat. Lp. Ins. B. M. XXIX. 833—4 (1864); Wlsm. Trans. Ent. Soc. 1881, 272: ante 34 (1889).

(*Type* ♂ ♀ *B. M.*)

Hab. Africa—Limpopo-Gariep District, Caffraria, Sierra Leone, Bathurst and Accra (*Gambia*).

(*Type* ♂ *Stockholm Mus.*)

♂ ♀ **impactella** Wlk.

Gelechia impactella Wlk. Cat. Lp. Ins. B. M. XXIX. 637 (1864); Moore, Lp. Ceyl. III. 514 (1887); Wlsm. ante 34 (1889).

Eretmocera impactella Moore Lp. Ceyl. III. 514, Pl. ccix., 10 (1887); Wlsm. ante 34—5, Pl. vi. 18 (1889).

Imago, April.

Hab. Asia—*India*, Dharmsala (Punjab), Barrackpore. *Ceylon Singapore.*

(*Type* ♂ *B. M.*)

♂ ♀ **chrysias** Meyr.

Castorura chrysias Meyr. Proc. Lin. Soc. N. S. W. (2. s.), I. 1047—8 (1887); Wlsm. ante 9 (1889).
Eretmocera chrysias Wlsm. ante 35, Pl. vi. 19 (1889).
Hab. Australia—Maryborough (Qd.), Sydney (N. S. W.)
(*Type* ♀ *Mus. Macleay*).

♂ ♀ **medinella** Stgr.

Staintonia medinella Stgr., Stett. Ent. Zeit. XX. 250—1 (1859); Stgr. & Wlk. Cat. (II.) No. 2704, p. 324 (1871); Wlk. Cat. Lp. Ins. B. M. XXIX. 701 (1864); Stn. Tin. S. Eur. 142, 157, 340 (1869); Ersch. Fedtsch. Reis. in Turkst. II. 106 (1874); Chr. Hor. Soc. Ent. Ross. XII. 230 (1876); Wlsm. ante 9 (1889).
Eretmocera medinella Wlsm. ante 35—36, Pl. vi. 20 (1889).
Imago. June, on flowers of *Umbelliferæ* and *Senecio*.
Hab. Europe—Chiclana (*Andalus*).
Asia—Krasnowodsk (*Persia*), Samarcand (*Turkestan*).
(*Type* ♂ ♀ *Mus. Stgr.*)

Explanation of Plate I.

♀ *Tinægeria ochracea*, Wlk.

1, natural size.

2, enlarged.

3, side view.

4, neuration.

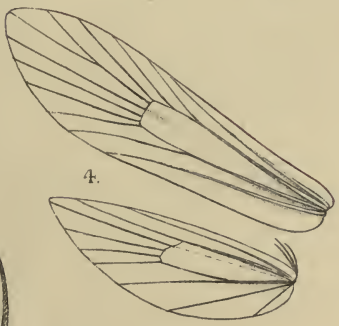
5, head, front view.

6, head, side view.

7, antenna of ♂.

3.

1.


4.

5.

7.

6.

2.

F.W. Frohawk del. et lith. Mintern Bros. Chromo.

Tinægeria.

Explanation of Plate II.

♂ *Snellenia coccinea*, Wlsm.

1, natural size.

2, enlarged.

3, side view.

4, neuration.

5, head, front view.

6, head, side view.

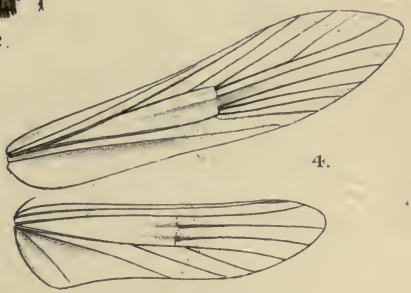
7, apical joints of antenna.

7.

1.

2.

6


4.

3

5.

Brants del. F.W. Frohawk lith. Mintern Bros. Chromo.

Snellenia.

Explanation of Plate III.

♀ *Pseudægeria squamicornis*, F. & R.

1, natural size.

2, enlarged.

3, side view.

4, neuration.

5, head, front view.

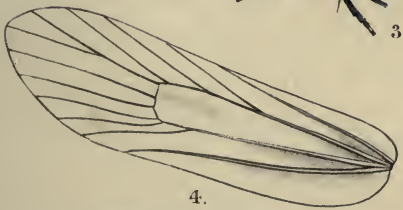
6, head, side view.

2.

5.

1.

3.



4.

6.

F. W. Frohawk del. et lith.

Mintern Bros. Chromo.

Pseudægeria.

Explanation of Plate IV.

♀ *Œdematopoda princeps*, Z.

1, natural size.

2, enlarged.

3, side view.

4, neuration.

5, head, front view.

6, head, side view.

4.

2.

1.

5♀

6.

3.

W. Frohawk del. et lith.

Mintern Bros. Chromo.

Œdematopoda

Explanation of Plate V.

♂ *Eretmocera basistrigata*, Wlsm.

1, natural size.

2, enlarged.

3, side view.

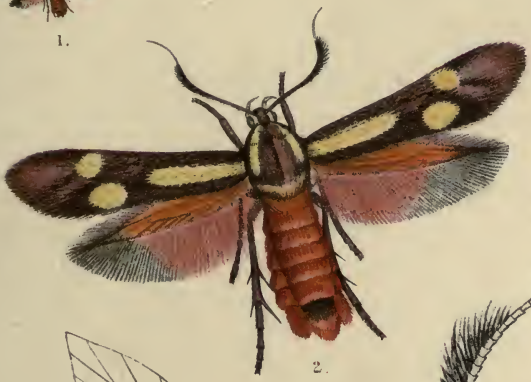
4, neuration.

5, head, front view.

6, head, side view.

3.

1.



2.

4.

5

6

J. W. Frohawk del. et lith.

Mintern Bros. Chromo.

Eretmocera.

Explanation of Plate VI.

1. *Tinægeria fasciata*, Wlk.
2. ,, *basalis*, Wlk.
3. *Snellenia tarsella*, Wlsm.
4. ,, *lineata*, Wlk.
5. ,, *latipes*, Wlk.
6. ,, *bimaculata*, Wlsm.
7. *Œdematopoda clerodendronella*, Stn.
8. ,, *ignipicta*, Btl.
9. ,, *leechi*, Wlsm.
10. *Eretmocera fuscipennis*, Z.
11. ,, *carteri*, Wlsm.
12. ,, *derogatella*, Wlk.
13. ,, *dorsistrigata*, Wlsm.
14. ,, *lunifera*, Z.
15. ,, *miniata*, Wlsm.
16. ,, *scatospila*, Z.
17. ,, *lætissima*, Z.
18. ,, *impactella*, Wlk.
19. ,, *chrysias*, Meyr.
20. ,, *medinella*, Stgr.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

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12.

13.

14.

15.

16.

17.

18.

19.

20.

F W Frohawk del. et lith.

Mintern Bros. Chromo.

Species of Tinægeria, Eretmocera &c.

XXI. *New Species of North American* Tortricidæ. By The Right Honble. Lord Walsingham, M.A., LL.D., F.R.S., etc.

[Read Oct. 2nd, 1895.]

Plate XII.

The following species are for the most part described from collections made by the late H. K. Morrison in Arizona and N. Carolina, and Mr. W. G. Smith at Loveland in Colorado; 18 out of 26 are figured. I am by no means convinced that these few descriptions exhaust the number of the undescribed species received from them, but especially in the genus *Pædisca* the local varieties have so strong a tendency to overlap according to the latitude in which they are taken that we meet in an accentuated form the ever-recurring difficulty of deciding what is a distinct species and what may be regarded as a mere variation from some already described northern or southern type.

I have for this reason selected those only which are obviously distinct in their characters, and which at least in the absence of any long series of connecting links cannot possibly be confounded with their Californian or other allies.

Had I been less strictly bound by this rule I could certainly have made known several additional variations in colour and markings which might well have claimed specific distinction, but which for the moment I have preferred to regard as strongly marked varieties of species already known to science. I am indebted to my friend, Dr. Fernald, for his advice and assistance in more than one instance, but even his high authority and sanction have not given me the courage to include in the present list all those species which he regarded as undescribed.

The paper has been somewhat expanded since the plate was put in hand, a further collection made by

Mr. Smith in the same locality having been received through the kindness of the Honble. Walter Rothschild. I regret that it is impossible to add illustrations to the plate, which leaves several types to be figured at some future time. A few corrections have been made in the nomenclature of the genera, as in the case of *Hysterosia* for *Idiographis*, *Zeiraphera* for *Steganoptycha*, and *Eucelis* for *Grapholitha*, the reasons for which will be found fully set forth where these names occur. I am painfully aware that these few corrections touch the fringe only of a subject uncongenial to my taste, but if any consistent method is to be introduced into the system of nomenclature finally adopted for general use by students of this and allied groups of Lepidoptera, it is a subject that must be boldly faced and placed once for all upon a sound basis. I have here endeavoured merely to indicate the lines upon which such an attempt can safely be made.

TORTRICIDÆ.

TORTRICINÆ.

Platynota, Clem.

Platynota nigrocervina, sp. n.

Antennæ, ♂, cinereous. *Palpi* cinereous, speckled with fuscous. *Head* and *Thorax* cinereous, with some fuscous shading. *Fore-wings*, ♂, fawn-ochreous, with a broad broken band of blue-black scales (some in raised tufts) extending from before the middle of the costal to beyond the middle of the dorsal margin; a similar band, but somewhat more mixed with the fawn ground-colour, begins beyond the costal margin and joins the first band about the lower angle of the cell; one or two transverse fawn-coloured streaks cross the apical portion of the wing to the anal angle, and above it and between these, as well as among the broken spaces in the dark bands, some lines of shining steel scales illuminate the paler ground-colour; cilia pale fawn, a slender reduplicated darker line along their base. *Exp. al.*, ♂ 20 mm. *Hindwings* reddish fawn; cilia grey, with a darker dividing shade near their base. *Abdomen* fawn ochreous. *Legs* fawn whitish.

♀ In the larger female the black bands are reduced to incon-

TES 1895

spicuous fawn-brown shades containing a few tufts of raised scales in which black is very sparsely represented. *Exp. al.*, ♀ 23 mm.

Type. ♂ ♀. Mus. Wlsm. (*Paratypes*, Tring Mus.)

Hab. Colorado—Larima Co., 5000 feet, July–August, 1891 (Smith).

Allied to *Platynota flavedana*, Clem.

Platynota metallicana, sp. n. (Pl. XII., fig. 1.)

Antennæ biciliate (2); ochreous, clothed at the base with ferruginous scales. *Palpi* very long; reddish ferruginous. *Head* ferruginous. *Thorax* ferruginous, mixed with ochreous. *Forewings* thickly covered with patches of rich ferruginous and ochreous raised scales, the interspaces between them shining metallic whitish ochreous; a rich shining lilac streak occupies the outer half of the discal cell and is diffused outward and downward toward the anal angle; there is also a lilac reflection about the patches of raised scales which form an irregular oblique fasciaform band from before the middle of the costa to the anal angle; a second shining lilac band leaves the costal margin at its outer fourth and curving slightly outwards is attenuated to the anal angle, this is narrowly margined by slightly raised lines of rich ferruginous and ochreous scales, two whitish ochreous metallic lines lying beyond it, the first adjacent to it, the second along the apical margin; cilia shining golden. *Exp. al.*, ♂ 16 mm., ♀ 19 mm. *Hindwings* rich tawny ferruginous; cilia golden, with a ferruginous dividing line near their base. Undersides uniformly rich reddish orange with golden cilia. *Abdomen* ferruginous, mixed with ochreous at the sides. *Legs* ochreous, externally tinged with ferruginous.

Type. ♂ ♀ Mus. Wlsm.

Hab. Florida. Three males and one female, the latter unfortunately much broken, but somewhat larger than the male, received from the late Mr. Morrison. It is difficult to describe in words the rich colour, combinations and metallic effects which distinguish this very beautiful and remarkable species, it can scarcely be regarded as closely allied to any other of the genus.

PHALONIANÆ.

PHALONIADÆ, Meyr. = *CONCHYLINÆ*, Fern.

HYSTEROSIA, Stph.

Hysterosia, Stph. List Br. An. B.M. X. Lp. 85 (1852); Wlsm. Ent. Mo. Mag. XXXI., 42 (1895); = *Idiographis*, Ld. Wien. Ent. Mts. III., 242, 246 (1859); Fern. Tr. Am. Ent. Soc. X., 23 (1882).

♂ *Hysterosia aureoalbida*, sp. n.

Antennæ, ♂, white above, greyish beneath. *Palpi and Head* white. *Thorax* very pale golden yellow. *Forewings*, ♂, shining silvery white, with a very pale golden yellow suffusion which is divided into oblique transverse bands beyond the middle; three or more coppery-red spots, one beneath the fold at one-third from the base, consisting of only a few scattered scales above the dorsal margin, near the outer end of the fold partially connected by a line of scales with a more conspicuous spot at the upper angle of the cell, a smaller spot lying half-way between this and the apex; these spots are all ill-defined (in some specimens consisting merely of groups of coppery-red scales, and in some almost entirely disappearing); cilia white, with a slight golden tinge. *Exp. al.*, ♂ 17 mm. *Hindwings* whitish, tinged with lilac-grey; cilia shining white. *Abdomen* greyish.

The ♀ is very different in colour from the ♂, the general effect is pale fawn-ochreous, the shining whitish ground showing only between the scattered patches of this colour and in transverse oblique bands across the apical portion of the wing. *Exp. al.*, ♀ 16 mm. The palpi, which are very sharp in the ♂, are somewhat shorter and more obtuse in the ♀, and together with the head, thorax, and antennæ, are pale fawn-ochreous. The hindwings are also a little darker.

Type. ♂ ♀. Mus. Wlsm.

Hab. Colorado—Loveland, 5–10,000 ft. July, 1891 (Smith).

Allied to *Hysterosia ægrana*, Wlsm.

PHALONIA, Hb. (Meyr).

= *CONCHYLIS*, *Tr.* (Fern.)

♂ *Phalonia felix*, sp. n. (Pl. XII., fig. 2.)

Antennae biciliate in the male (1); pale cinereous. *Palpi* whitish internally, reddish fawn externally. *Head* creamy white. *Thorax* whitish, the tegulæ shaded with reddish fawn. *Forewings*

elongate, slightly widened outwardly, costal margin straight, apical margin oblique, apex rounded ; creamy white, with some shining white scales and rosy fawn-brown markings ; the costal margin shaded with rosy fawn to beyond the middle, more widely at the base, this colour is diverted from the middle of the costal margin obliquely backward, but almost obliterated on the cell forming an indistinct fasciaform band which terminates in an oblique quadrate ferruginous spot, resting widely on the dorsal margin, reaching to the fold and narrowly margined with black on both sides, a small black spot lying beyond it at the commencement of the dorsal cilia ; a fawn-brown shade, leaving the costal margin at its outer fourth, curves outwards and reverts parallel to the apical margin in the direction of the anal angle, and contains a patch and line of black scales below its middle ; this is preceded and followed by sinuous broken bands of silvery white, the outer one ending in a fork before the apex ; apical margin narrowly fawn-brown with some ferruginous scales ; cilia mottled throughout with pale rosy fawn and blue-grey scales, which at the apex are darker than towards the anal angle. Underside leaden grey, the costal margin narrowly rosy fawn, with white and grey speckling towards the apex. *Exp. al.*, 20 mm. *Hindwings* pale grey ; cilia whitish grey. Underside paler than in the forewings, with darker reticulations on the outer half. *Abdomen* fawn-grey. *Legs* greyish, the tarsi banded with fawn-brown.

Type. ♂♀. Mus. Wlsm.

Hab. Colorado—Loveland, 5,000–10,000 ft., July 1891 (several specimens—Smith).

This species is allied to the European *Conchylis hilarana*, H.-S.

Phtheochroa, Stph.

Phtheochroa macrocarpana, sp. n. (Pl. XII., fig. 3.)

Antennæ cinereous. *Palpi* projecting three times the length of the head beyond it ; creamy white. *Head* creamy white. *Thorax* grey, mottled with whitish. *Forewings* shining white, with grey bands ; a broad grey basal patch, containing a few black scales at its outer edge, and some white about the base of the fold and on the dorsal margin, spreads obliquely outwards from the costa to the fold, thence reverting at an angle to the dorsal margin ; an irregular central fascia of the same colour is indented before and behind at the upper edge of the cell and is less well defined on its

inner side near the dorsal margin than elsewhere, its edges being, for the most part, speckled with black and brown scales, of which there is also a large patch across its middle; beyond it, from the outer fourth, a cuneiform band divided by white on the costa, descends nearly to the anal angle ending in a point before reaching it, its somewhat sinuous edges defined by black and brown lines; the space about the apex, as well as between the markings described, is very faintly mottled with pale grey; cilia yellowish white. *Exp. al.*, 17 mm. *Hindwings* shining pale grey, delicately mottled throughout with darker grey; cilia shining greyish white. *Abdomen* shining greyish. *Legs* whitish, with a slight ochreous tinge.

Type. ♀. Mus. Wlsm.

Hab. California—Alameda Co., bred from seeds of *Cupressus macrocarpa*, 24th January, 1886. (Received from Dr. C. V. Riley, No. 46, 1886.)

OLETHREUTINÆ (*OLETHREUTÆ*, Hb.) Wlsm. emend

= *GRAPHOLITHINÆ*, Fern. = *EPIBLEMIDÆ*, Meyr.

PENTHINA, Tr.

Penthina melanosticta, sp. n.

Antennæ greyish fuscous. *Palpi* black, with some white scales beneath. *Head* whitish, mixed with fuscous and ferruginous scales. *Thorax* black, the ends of the tegulæ white. *Forewings* white, with numerous black and blue-grey blotches mixed with some ferruginous scales, especially about the apex and apical margin; these blotches are distributed in an ill-defined basal patch extending to one-fourth (partially connected by greyish mottling with a broad central fascia, interrupted on vein 2), and also about the apex and more sparingly before and above the anal angle; there are three costal spots beyond the central fascia, a blue-grey spot beyond the end of the cell, and a short band of the same colour nearly parallel with the upper half of the apical margin; cilia dark greyish fuscous with a black line along their base and some white speckling at their outer extremities. Underside greyish fuscous, the outer half of the costal margin cream-white with three fuscous spots. *Exp. al.*, 24 mm. *Hindwings* brownish; cilia somewhat paler, with a dark dividing line near their base. Underside dirty whitish, the margins shaded with fuscous.

Abdomen blackish (possibly somewhat discoloured by grease), with a white transverse band behind the thorax. *Legs* whitish, with greyish fuscous tarsal bands.

Type ♀. Mus. Wlsm.

Hab. Colorado—Larima Co., 10,000 ft., July, 1891 (Smith).

♂—*Penthina duplex*, sp. n. (Pl. XII., fig. 4.)

Antennæ cinereous. *Palpi* whitish; apical joint very short, grey. *Head* and *Thorax* whitish, the latter shaded with grey and having a slight tuft at the back mixed with brownish ochreous scales. *Forewings* with the costal margin evenly arched, apical margin slightly oblique; creamy white, with grey basal patch and central fascia, both studded with dark umber-brown scales; the basal patch is wider on the dorsal than on the costal margin, obtusely angulated outward on the fold; the central fascia, narrow on the costa, is dilated outwards beneath it, again contracted on the cell, and thence again dilated more widely to the dorsal margin; the more conspicuous patches of dark scales upon it are one on the cell, one at the lower edge of the fold, and one on the dorsal margin at its outer extremity near the anal angle; on the outer half of the costal margin are three greyish fuscous spots with minute specks of the same colour lying between them; the whole wing-surface beyond the fascia is overstrewn with delicate brownish ochreous scaling in the form of oblique transverse streaklets, not clearly defined, but giving a slight ochreous hue to the white ground-colour; some similar scaling may be seen on parts of the central fascia, and conspicuously in a semicircular spot at the extreme apex; a series of small greyish fuscous spots lies around the apical margin sending some dark scales through the white cilia, near the base of which is a dark, dividing line. *Exp. al.*, 27 mm. *Hindwings* umber brown; cilia shining whitish, with a dark dividing line. *Abdomen* brownish grey, the anal tuft inclining to ochreous. *Legs* pale cinereous.

Type. ♂. Mus. Wlsm.

Hab. Colorado—Loveland, 5,000–10,000 ft., July, 1891 (Smith).

A very large species not nearly allied to any other North American form known to me.

(Group Sericoris, Tr.)

Penthina major, sp. n.

Antennæ greyish fuscous, spotted above with white. *Palpi* pale fawn, the apical joint fuscous. *Head* and *Thorax* fawn-grey. *Forewings* fawn-brown, speckled with pale ochreous, with two pale ochreous transverse fasciæ margined on both sides by shining silvery bands; the apex is mottled with pale ochreous preceded by an angulated silvery band; the first fascia is at one-third from the base, its inner margin slightly concave, its outer margin slightly bulging outwards on the cell; the second fascia leaving the costal margin beyond the middle runs obliquely to the anal angle, the silvery bands which bound it being deflected inwards to the dorsal margin from about the lower angle of the cell, a few fawn-brown spots along the costal margin encroach upon the upper edge of the pale fasciæ; cilia white, with some grey shading at their base, especially around the apex. *Exp. al.*, 23 mm. *Hindwings* fawn-grey, with whitish cilia. *Abdomen* greyish fuscous, anal tuft ochreous. *Legs* white.

Type. ♂. Mus. Wlsm.

Hab. Colorado—Loveland, 5,000–10,000 ft., 1891 (Smith).

Allied to *S. constellatana*, Z., but the silvery markings confined to the margins of the fasciæ, not scattered between them; it is also a larger and more distinctly marked species.

Pædisca, Tr.

Pædisca hyponomeutana, sp. n. (Pl. XII., fig. 12.)

Antennæ, ♂, biciliate (½), rather stout; white. *Palpi* moderately clothed, projecting slightly beyond the head; apical joint short, drooping; white. *Head* thickly clothed above and in front; creamy white. *Thorax* shining white, with two lateral black spots posteriorly; tegulæ with a few black scales across their middle. *Forewings* with the costal margin straight, apical margin slightly oblique, anal angle rounded; shining white sprinkled with distinct black angular spots to the number of about fifty: of these one only, at about one-sixth of the wing-length, is actually contiguous to the costal margin, others beyond, approach it very closely, but there is no apparent regularity in the arrangement of the spots, which are for the most part transversely elongate, a somewhat regular series of about ten extending from the base immediately below the fold; a second series of about six below it,

along the dorsal margin ; there is an elongate spot in the base of the cilia immediately below the apex, and a larger and more conspicuous one scarcely below the middle of the apical margin, the latter plainly visible on the underside ; cilia white, tipped at the apex with greyish fuscous. *Exp. al.*, 26 mm. *Hindwings* white, with a slight smoky brown shade, especially on their outer half ; cilia shining white. *Abdomen* white. *Legs* white, with a slight brownish tinge.

Type. ♂. Mus. Wlsm.

Hab. Colorado—Loveland. A single specimen of this very distinct species received from Mr. W. G. Smith in 1891.

Pædisca ragonoti, sp. n. (Pl. XII., fig. 9.)

Antennæ very slightly pubescent rather than ciliate ; white, slenderly annulated with mouse-grey. *Palpi* white, tinged with mouse-grey at the outer sides ; densely clothed to the apex. *Head* creamy white. *Thorax* white, slightly grey shaded. *Forewings* pale mouse-grey, with shining white blotches ; the extreme base narrowly shining white, as also the extreme edge of the dorsal margin near the base ; a pair of large irregular shining white spots on the basal third, obliquely placed, the first on the middle of the wing reaching to the lower edge of the costal fold, the second beyond and below it touching the dorsal margin ; a very oblique shining white band from below the costa, before the middle, crosses the wing obliquely, and is bent back at its outer extremity to the middle of the dorsal margin ; from near its outer angle a curved shining white streak bends outwards, reverting to the anal angle and throwing out a branch to the apical margin below the apex ; above this curved streak, on the outer half of the wing, is a quadrate subcostal shining white patch, branching obliquely outward to the costal cilia, a short shining white apical streak beyond it ; cilia white, with a mouse-grey shade running through them at the apex, and below the middle of the apical margin. Underside smoky grey, with three white costal spots towards the apex. *Exp. al.*, 23 mm. *Hindwings* pale fawn-grey ; cilia white, with a grey shade along their base. *Abdomen* fawn-grey. *Legs* greyish white.

Type. ♂ ♀. Mus. Wlsm.

Hab. Colorado—Loveland, 5,000 and 10,000 ft., July, 1891 ; several specimens (Smith).

Allied to *Pædisca bolanderana*, Wlsm.

Pædisca argenteana, sp. n. (Pl. XII., fig. 13.)

Antennæ biciliate in the ♂ (scarcely ½); pale fawn. *Palpi* whitish, tinged with pale fawn-colour. *Head* and *Thorax* pale fawn, the latter with silvery white longitudinal streaks on either side of the middle. *Forewings* pale fawn-ochreous, with shining silvery white streaks longitudinally; one commencing near the base of the costal margin follows it to two-thirds of the wing-length, thence obliquely depressed towards the middle of the apical margin (without however reaching it), whence it is broken by lines of scattered brown scales into three longitudinal striæ, the lower one curving back to the lower extremity of the cell and there nearly meeting a conspicuous shining white streak which comes straight from the base along the cell; above the outer half of this latter lies a shorter parallel shining white streak; half-way between the fold and the dorsal margin is another shining white streak coming from the base and reaching to the commencement of the dorsal cilia; the extreme dorsal margin below it, and the outer half of the fold above it being also streaked with shining white, margined at its outer extremity by brown scales; on the costal margin before the apex is a semicircular shining white streak enclosing an ovate spot of the ochreous ground-colour; along the apical margin is a narrow shining white band, separated from the shining white cilia by a slender brown line. *Exp. al.*, 19 mm. *Hindwings* pale fawn-grey; cilia greyish white. *Abdomen* fawn-grey. *Legs* whitish.

Type. ♂. Mus. Wlsm.

Hab. Colorado—Loveland, 5,000–10,000 feet, July, 1891; eight specimens (Smith).

I find the markings of this species somewhat variable and frequently almost obliterated on the outer half of the wing. The description is taken from a very distinctly marked specimen.

Pædisca serpentana, sp. n. (Pl. XII., fig. 10.)

Antennæ white, annulated with pale mouse-grey. *Palpi* projecting fully the length of the head beyond it, the long hairs of the second outreaching the short apical joint; white, slightly shaded at the sides. *Head* white. *Thorax* creamy white. *Forewings* mouse-grey, speckled with whitish about the outer end of the cell, inclining to fawn ochreous around the edges of the shining white bands which traverse the wing-surface; the first of these

commences at the base below the costa, dilated outwards and bent downwards at one-third, terminating in an acute point about the middle of the wing, at its base it is diffused downwards across the fold, almost blending with a sinuous band of the same colour, commencing near the middle of the dorsal margin, thence looped outwards and upwards, reverting nearly to the anal angle and deflected towards the apex parallel with the apical margin ; on the outer half of the costal margin are two short shining white festooned bands, the first deflected obliquely outward, the second equidistant between it and the apex ; the apex, apical margin, and cilia are white, thickly speckled with grey scales. Underside with three or four pale costal spots beyond the middle. *Exp. al.*, 20 mm. *Hindwings* pale fawn-grey ; cilia whitish. *Abdomen* and *Legs* creamy whitish.

Type. ♂. Mus. Wlsm.

Hab. Colorado—Loveland, 5,000–10,000 feet, July, 1891 ; four specimens (Smith). One specimen received from Morrison many years ago, also from Colorado.

Closely allied to *Pædisca morrisoni*, Wlsm.

C. *Pædisca adamantana*, Gn.

Argyroptera adamantana, Gn. Ind. Meth., 65 (1845) ;[1] Hdnrch. Lp. Eur. Cat. Meth., 66, No. 157 (1851).[2]

Conchylis adamantana, Wlgrn. Bih. Svensk. Vet. Ak., III., 13, No. 93 (1875) :[3] Ent. Tdsk., IX., 196 (1888) ;[4] Rag. Ann. Soc. Ent. Fr., LXIII., 187–8, Pl. I., 5 (1894).[5]

Type. Mus. Oberthür.

Hab. Lapland (?).[1, 3, 4] North America.[5]

This appears to be a convenient opportunity for noticing a remarkable and very distinct species originally described by Guenée, who supposed that it had been collected in Lapland. M. Ragonot has recently re-described it from a North American specimen in his own collection which I have had the opportunity of examining. The precise locality is still unknown. It is undoubtedly a *Pædisca* with normal neuration and a distinct brown costal fold, and therefore, inadvertently placed by Ragonot in the genus *Conchylis*, although vein 2 of the forewings may be said to come from the commencement of the outer third of the cell. Its position would appear

to be near *Pædisca crambitana*, Wlsm., and it is an equally beautiful and remarkable form. We may hope that at some future time the number of known specimens (at present only three) may be increased.

[*Pædisca* (?) *norvichiana*, Hb.

Tortrix norvichiana, Hb. Samml. Eur. Schm., VII., Pl. XL., 252 (1814); *Eugnosta norwichiana*, Hb., Verz. bek. Schm., 394, No. 3832 (1826); *Argyroptera norvichiana*, Gn. Ind. Meth., 65 (1845); *Eupecillia norwichiana*, H.-S. Schm. Eur. IV., 179 (1849); *Argyroptera norvichiana*, Hdnrch. Lp. Eur. Cat., Meth., 66, No. 158 (1851).
Hab. ?

I should like to call attention to *norvichiana*, Hb., the species which precedes *adamantana*, Gn., in the Index Methodicus, in regard to which Herrich Schäffer remarks, "vielleicht exotisch." Nothing appears to be known about this insect, nor is it mentioned in Staudinger and Wocke's Catalogue. A study of the figure leaves a strong impression upon my mind that it is a *Pædisca* allied to *adamantana*, nor should I be surprised to receive both species from some sub-arctic region.]

Pædisca smithiana, sp. n.

Antennæ white. *Head*, *Palpi*, and *Thorax* white. *Forewings* shining white (in some specimens with a slight yellowish tinge), some faint smoky grey lines and streaks in the ♀ are almost entirely obliterated in the ♂ specimen; these appear along the fold and around the margins of the cell, some also descending obliquely from the costal margin before the apex, whence also arise one or two silvery marks, extending downwards towards the ocelloid patch, which is margined before and behind with silvery white, preceded at its lower angle by a minute group of black scales, and contains two black dots; cilia white, profusely and minutely speckled with black. *Exp. al.*, 16 mm. *Hindwings* very pale whitish grey; cilia white. *Abdomen* very pale greyish. *Legs* white.

Type. ♂ ♀. Mus. Wlsm.
Hab. Colorado—Loveland, 5,000 ft., July, 1891 (Smith).

Nearly allied to *P. pergandeana*, Fernald MS., but

somewhat smaller and more shining in appearance, the ground-colour being more unmistakably white.

Pædisca biplagata, sp. n. (Pl. XII., fig. 7.)

Antennæ biciliate (less than ½); very pale fawn, the basal joint, straw ochreous. *Palpi* projecting more than the length of the head beyond it; pale straw-ochreous, shaded along the sides with fawn-brown. *Head* and *Thorax* straw ochreous. *Forewings* rather wide, the costal margin very slightly arched, apical margin convex; pale straw ochreous with two small patches of fawn-brown scales, the first above the middle of the dorsal margin, pointing obliquely outwards, reaching to the lower edge of the cell; the second at the end of the cell, tending obliquely outwards, from near the costal in the direction of the apical margin above the anal angle; these patches are faintly outlined by shining white scales, extending towards the anal angle, but scarcely distinguishable from the pale ground-colour of the wing, in which there is a certain admixture of the same; cilia pale straw ochreous, tending to whitish on their outer half. *Exp. al.*, 24 mm. *Hindwings* pale reddish brown; cilia shining white. *Abdomen* whitish ochreous. *Legs* whitish.

Type. ♂. Mus. Wlsm.

Hab. Colorado—Loveland, 10,000 ft., July, 1891; two specimens (Smith).

Pædisca fuscosparsa, sp. n. (Pl. XII., fig. 8.)

Antennæ biciliate (more than ½); pale cinereous. *Palpi* projecting the length of the head beyond it; whitish ochreous. *Head* brownish ochreous. *Thorax* whitish ochreous, the tegulæ spotted with greyish fuscous scales. *Forewings* moderately straight, not much widened outwardly; whitish ochreous, streaked and sprinkled with brownish fuscous scales, with a slight fawn-brown suffusion along the middle; the brownish fuscous scaling is more noticeable about the middle of the wing-surface where, in the type, it assumes the form of an ill-defined narrow band enclosing the outer portion of the cell and resting on the fold at either extremity; immediately below the costal margin are a number of small irregular brownish fuscous spots, and a line of these runs parallel to the apical margin at a short distance from it, preceding a few similar spots at the apex and along the margin itself; below the fold are also a few small brownish fuscous spots and the paler fawn-brown suffusion is also here somewhat noticeable; cilia whitish ochreous touched with fuscous at the edges. The forewings are pale margined on the underside, the pale costal band

distinctly dilated before the apex. *Exp. al.*, 28 mm. *Hindwings* tawny brown ; cilia whitish, a brown dividing line near their base. *Abdomen* whitish cinereous, anal tuft whitish ochreous. *Legs* whitish.

Type. ♂. Mus. Wlsm.

Hab. Colorado—Loveland, 5,000–10,000 ft., July, 1891 ; two specimens (Smith).

In the second specimen, although both are in equally good condition, the markings are almost obliterated, neither the subcostal spots, the subapical line, nor the discal lines being at all clearly defined but consisting merely of a general distribution of brownish fuscous scales indicating their pattern and position which so far as it goes is the same as in the type.

A series received (from the same locality) since this description was written, exhibits considerable variation in the markings, some varieties approaching closely the narrower-winged *Pædisca mediostriata*, in these the median shade and transverse streaking become obsolete, the darker markings assuming the form of radiating streaks between the veins beyond and above the cell. In some specimens no markings whatever are apparent, the ground-colour becoming pale cream ochreous with merely some scattered fuscous scales dusted over the surface.

Pædisca mediostriata, sp. n. (Pl. XII., fig. 11.)

Antennæ biciliate (more than ½) ; whitish. *Palpi* projecting more than the length of the head beyond it ; fawn-grey, white on their inner sides. *Head* and *Thorax* fawn-grey, the ends of the tegulæ paler. *Forewings* fawn-grey sprinkled with elongate blackish scales, the costal margin from near the base white, a broad median white streak from the base to the end of the cell is furcate at its apex, a second narrower white streak running parallel with it below the fold ; from the end of the cell about six diffused ill-defined streaks radiate in the direction of the apex and apical margin, interspersed with blackish scales ; cilia white. *Exp. al.*, 22 mm. *Hindwings* dark tawny brown ; cilia white with a distinct brown line running through them near their base. On the underside the wings are all distinctly pale margined, the pale costal band of the forewings being of equal width throughout. *Abdomen* creamy whitish. *Legs* whitish.

Type. ♂. Mus. Wlsm.

Hab. Colorado—Loveland, 5,000 ft., July, 1891 ; five specimens (Smith).

Pædisca invicta, sp. n.

Antennæ biciliate (1) in the male; greyish ochreous. *Palpi* fawn greyish at the sides, whitish above and beneath; the apical joint almost entirely concealed in closely appressed scales. *Head* fawn-brown. *Thorax* whitish, with a pale pink suffusion. *Fore-wings* white, mottled with pale leaden grey, except on a broad quadrangular medio-dorsal patch, the grey mottling is more concentrated around the margins of this patch and before the upper half of the apical margin than on the other parts of the wing; the quadrangular white dorsal patch has its inner edge almost straight, a narrow pale fawn-brown line studded with groups of black scales separating it from the grey mottled space which precedes it, its outer edge is somewhat angulated, reducing its width above the fold, here also it is bounded by a slender fawn-brown line and a series of black dots; the slight fawn-brown shade beyond it precedes a curved line of black dots indicating the inner margin of an obsolete ocelloid patch, and beyond this, parallel with the middle of the apical margin, are three or four small black lunules with some pale fawn-brown scaling which is repeated in an oval spot at the extreme apex; cilia rosy white, a grey line at their base around the apex, and three grey spots about the middle of the margin. *Exp. al.*, ♂ 30 mm.; ♀ 33·5 mm. *Hindwings* greyish fuscous; cilia white, with a dividing shade near their base. *Abdomen* greyish. *Legs* white.

Type. ♂♀. Mus. Wlsm. (*Paratypes,* Tring Mus.)

Hab. Colorado—Larima Co., 5,000 ft., July, 1891 (Smith).

The description is taken from an extremely fine and well-marked specimen, but two varieties occur which are at least worth mentioning: in both, the lines of black dots are obliterated and the grey mottling is much less distinguishable, in one the whole wing is suffused with rosy pink as in fine specimens of the European *Pædisca incarnatana,* Hb., in the other there is but the faintest indication of the darker markings, the white ground-colour prevailing throughout.

Pædisca (?) *carolinana,* sp. n. (Pl. XII., fig. 5.)

Antennæ finely ciliate; greyish fuscous. *Palpi* (broken). *Head* purplish fuscous, mixed with grey brown scales. *Thorax* purplish fuscous, posteriorly tufted with ferruginous and grey

scales. *Forewings* of approximately even width throughout, the costa slightly arched, the apical margin slightly sinuous not oblique, the anal angle rounded ; greyish white, with leaden grey spots and blotches ; a basal patch occupying nearly one-third of the wing, its outer edge serrate throughout, is composed of an equal admixture of black, leaden grey, brownish grey, ferruginous and whitish scales distributed in patches, more or less blending with each other ; the same colours are found in a series of scattered patches following the costal margin and distributed across the wing beyond the middle and towards the apex, the black prevailing in a broken quadrate patch resting on the dorsal margin before the anal angle and in a semicircular subapical spot, with some smaller spots below it, parallel to the margin, which is blotched with ferruginous, bounded inwardly by a sinuate white line, the white ground-colour appearing also in a series of about seven geminated costal streaks, commencing at the outer edge of the basal patch, and ending before the apex ; the cilia are for the most part brownish grey broken and mottled with white. *Exp. al.*, 25 mm. *Hindwings* brown ; cilia greyish white, with a brown dividing line. *Abdomen* brownish. *Hind legs* whitish cinereous, the tibiæ thickly clothed with long scales, the tarsal joints banded with grey.

Type. ♀. Mus. Wlsm.
Hab. North Carolina (Morrison).

A conspicuous and very distinct species of the group allied to *scudderiana*, Clem., but surpassing that species in size and distinguished from its allies by the uniformly dark hindwings and rich mottling of the forewings.

C - *Pædisca dilatana*, sp. n. (Pl. XII., fig. 14.)

Antennæ very pale fawn colour. *Palpi* projecting more than twice the length of the head beyond it; fawn-white, thickly dusted with fawn-brown on the outer sides. *Head* fawn-white, sparsely sprinkled with brownish scales. *Thorax* fawn-white, sprinkled with fawn-brown. *Forewings* somewhat narrow at the base, widened outwardly, the apex acute, the oblique apical margin slightly impressed beneath it, costal margin slightly rounded ; very pale (almost whitish) fawn with a pale fawn-brown basal patch, occupying fully one-third of the wing-length, narrower on the dorsal than on the costal margin, its outer edge very oblique and angulated below the costa ; a rounded dorsal patch of the same colour before the anal angle and a sinuous streak of varying width commencing on the cell and ending at the apex, the ground-colour

being at its palest immediately around the outer margins of these markings ; a few darker almost fuscous scales are sprinkled about the costal fold and apical streak and along the base of the cilia, which are fawn-brown tipped and sprinkled with white. *Exp. al.*, 26 mm. *Hindwings* pale fawn-brown; cilia somewhat lighter, with a slight dividing shade near their base and some faint whitish speckling. On the underside the hindwings are more decidedly lighter than the forewings. *Abdomen* and *Hindlegs* pale fawn.

Type. ♂. Mus. Wlsm.
Hab. Arizona (Morrison).

This species differs from *Pædisca dorsisignatana*, Clem., in its wider forewings, in the more outward position of the dorsal blotch and in the obliquely margined basal patch, although in general appearance it somewhat recalls a large specimen of that species.

I should like to add here that I cannot agree with Dr. Fernald in regarding *Pædisca graduatana* as a variety of *dorsisignatana*, the hindwings are more reddish-brown and the dorsal patch is much squarer and more upright than in that species of which I have a very long series presenting almost every possible grade of variation from the pale buff-coloured Californian specimens to the dark greyish fuscous varieties from N. Carolina.

C. *Pædisca castaneana*, sp. n. (Pl. XII., fig. 6.)

Antennæ pale cinereous, distinctly banded above with fuscous. *Palpi* (broken). *Head* chestnut brown ; face white. *Thorax* chestnut brown, whitish posteriorly. *Forewings* shining white and bright chestnut brown in about equal proportions, the former occupying the central portion of the wing, the latter forming a strong basal patch with convex outer edge, broader on the dorsal than on the costal margin, a median costal blotch dilated and diffused outward and downward and overspreading the white ground-colour, with a slight chestnut tinge, to the anal angle, also forming two small costal spots beyond it, and covering the whole apical portion of the wing, except a reduplicated white costal streak before the apex ; the bright chestnut apical patch throws out a strong projection on its inner edge above the middle ; cilia rosy grey, with some blackish scales along their base below the middle of the apical margin. *Exp. al.*, 15 mm. *Hindwings* shining pale grey,

with a slight pinkish tinge; cilia pale yellowish grey, with a faintly indicated dividing line. *Abdomen* shining pale grey, anal tuft ochreous. *Legs* pale ochreous.

Type. ♂. Mus. Wlsm.

Hab. Colorado—Loveland, July, 1891 (Smith).

This species has the form and appearance of a *Steganoptycha* allied to *incarnatana*, Hw., but is at once distinguished by its straighter neuration and the distinct costal fold in the ♂.

SEMASIA, Stph.

Semasia bucephaloides, Wlsm. (Pl. XII., fig. 17.)

Semasia bucephaloides, Wlsm. Ins. Life, III., 465 (1891).

Type. ♀. Mus. Wlsm.

Hab. California—Little Shasta (Siskiyou Co.) September, 1871.

I take the opportunity of figuring this species, which was captured by myself in 1871, sitting on flowers of *Mentzelia lævicaulis*.

Semasia octopunctana, sp. n.

Antennæ cream-colour. *Palpi* cream-white. *Head* cream-white, slightly shaded with pale fawn at the sides. *Thorax* cream-coloured. *Forewings* cream-colour, with a reddish brown suffusion, except along the costal third of the wing; two bright oblique reddish brown transverse bands, the first at one-third from the base, nearer to the base on the costal than on the dorsal margin, where it blends on its inner side with the paler reddish brown suffusion which precedes it; the second arising on the middle of the costal margin, reaches the dorsal margin before the anal angle, sending outwards from its middle an angulated band which ends at the apex, a slender broken silvery line separating its upper edge from the elongate cream-coloured costal patch which fills the space above it; the ocelloid patch above the anal angle, bounded at each extremity by a silvery line, is cream-coloured, containing eight jet black spots in two parallel rows of four each; cilia hoary greyish. *Exp. al.*, 16 mm. *Hindwings* grey, with slightly paler cilia. *Abdomen* grey.

Type. ♂. Mus. Wlsm.

Hab. Colorado—Larima Co., 5,000 ft., May, 1891 (Smith).

Allied to *Semasia ochreicostana*, Wlsm.

Semasia ochrocephala, sp. n.

Antennæ greyish, the basal joint pale ochreous. *Palpi* whitish ochreous, with a brown spot on the outer side of the second joint. *Head* whitish ochreous. *Thorax* whitish ochreous, streaked with fawn-brown. *Forewings* whitish ochreous, much suffused with fawn-brown from the base to the ocelloid patch as high as the upper edge of the cell ; some narrow oblique fawn-brown streaklets along the costal margin alternate with wider ones ; an oblique patch of the same colour at about the middle of the margin connected with the dark suffusion below it, on this suffused portion are patches of greyish fuscous tending obliquely outwards from the basal third of the dorsal margin and reverting to it, beyond the middle ; the ocelloid patch is pale yellowish ochreous margined by shining silvery bands and containing two black streaks; cilia whitish ochreous, with a slight shade along their base near the apex. *Exp. al.,* 18 mm. *Hindwings* brownish grey, with whitish cilia, shaded at their base. *Abdomen* greyish fuscous, anal tuft whitish ochreous. *Legs* whitish.

Type. ♂. Mus. Wlsm.

Hab. Colorado—Loveland, 5,000 ft., July, 1891 (Smith).

Several specimens of this species which appears to be allied to *S. corculana,* Z.

Semasia obliterana, sp. n. (Pl. XII., fig. 15.)

Antennæ white, faintly annulated. *Palpi*, *Head*, and *Thorax* milk white. *Forewings* milk white ; an elongate grey spot below the fold at one-fourth, and a patch of grey scales at the outer end of the cell, occasionally preceded by longitudinal grey streaks, beyond this some lines of grey scales extend outwards to the apical margin below the apex, terminating in an oblique streak of ferruginous and black scaling connected with a grey shade in the cilia and enclosing a small ochreous patch, above which the apex and apical cilia are pure white, as is the whole costal fourth of the wing, with the exception of a series of grey dots along the extreme margin and two short streaks before the apex ; the ocelloid patch is shining white containing transverse lines of ferruginous and black scales sometimes only faintly indicated ; opposite to this the apical margin and cilia are thickly speckled with grey, the spaces above and below being white, with the exception of two smaller grey patches at the anal angle. *Exp. al.,* 31 mm. *Hindwings* brownish grey ; cilia white, with a faint shade along their base. *Abdomen* brownish grey. *Legs* white.

Type. ♂. Mus. Wlsm.

Hab. Arizona (Morrison, 1883), Colorado—Larima Co., 5,000 ft., June, July, and August, 1891 (Smith).

In some specimens there is more sprinkling of grey scales over the white ground-colour than in others, tending always to assume the form of diffused longitudinal streaks, the ochreous subapical patch is sometimes diffused downwards giving a slight ochreous shade beneath it.

Since writing the above description from the Arizona specimens I have seen others from Colorado (collected by Smith) which have a slight ochreous hue over the forewings and a ferruginous brown dash near the base, below and parallel to the fold, the dark marginal dots are more distinctly expressed as is also the darkening of the cilia.

Allied to *Semasia elongana*, Wlsm., but lacking the dorsal streak and the white dividing line in the cilia of the forewings, it is also lighter in colour.

♂ *Semasia transversa*, sp. n. (Pl. XII., fig. 16.)

Antennæ cinereous. *Palpi* triangular, projecting more than twice the length of the head beyond it, the apical joint completely concealed in long projecting scales ; pale cinereous, whitish above. *Head* creamy-white. *Thorax* pale olive-brown. *Forewings* pale olive-brownish, with white transverse fascia and outer patches (I take the darker shade as the ground-colour for convenience of description, but it would perhaps be equally correct to describe the wing as white, with olive-brown basal patch and central fascia) ; the white fascia commences before the middle of the costal margin, is contracted at the upper edge of the cell, and dilated below the cell to the dorsal margin, bulging on its outer edge along the fold ; beyond the middle of the costa is an outwardly oblique white patch, sometimes divided at its upper end by a small olivaceous line or spot, this is contiguous at its outer edge to a waved white band, enclosing a triangular spot of the dark ground-colour on the costal margin, and extending nearly to the apex, on its lower portion is an olivaceous shade ; beneath these two marks and sometimes touching the extremity of the first one—the rounded ocelloid patch, internally olivaceous, contains sometimes a few black scales, but no black transverse streaks ; the margins of these three markings are narrowly shining white, and between and around them are some dark umber-brown scales, a patch of the same lying on the

fold before the central fascia ; cilia white at the base, with lines of olivaceous scales throughout from apex to anal angle. *Exp. al.*, ♂ 26 mm. ; ♀ 23 mm. *Hindwings* brown-grey, cilia whitish, with a grey shade and basal line. *Abdomen* brownish grey. *Legs* pale cinereous.

Type. ♂ ♀. Mus. Wlsm.

Hab. Colorado—Loveland, July and September, 1891 (Smith).

A series of this species shows it to be extremely variable in the intensity, and sometimes in the precise form of the markings, some specimens having three instead of two triangular costal spots before the apex. It is nearly allied to *Semasia tarandana*, Mschl., but that species, which is from Labrador (Mschl.) and Oregon (Fern.), differs in its much less clearly defined markings, and in the absence of a clearly indicated patch, this can be traced only in a dark spot on the fold corresponding to the patch of umber-brown scales before the central fascia, described in the present species, but which in *tarandana* appears completely isolated instead of being connected by the dark ground-colour with the dorsal margin; nevertheless, it is possible (although Dr. Fernald informs me that he regards this species as new) *transversa* may prove to be the southern form of the insect described by Möschler.

Zeiraphera, Tr.

Type. *Tortrix corticana*, Hb. (=*communana*, Crt.)

Zeiraphera, Tr. Schm. Eur., VII., 231-2 (1829) ; Crt. Guide (1 edn.), 168-9 (1831) : (2 edn.) 197 (1837) : Br. Ent., XV., Pl. 711 (1838) ; Stph. List Br. An. BM., X., Lp. 43 (1852).

= * *Steganoptycha*, Wilk., Stgr. and Wk. Cat. ; Fern. (nec Stph.)

As I have already pointed out in the "Entomologist's Monthly Magazine," Vol. XXXI., p. 43 (1895), Stephens, Ill. Lp. Br. Ins. Haust., IV., 105 (1834), characterises his genus *Steganoptycha* [originally published, Cat. Br. Ins., II., 176-7 (1829)] in the following words: "The males of this genus, at least in the typical species, are well characterized by the peculiar process of hairs, which, during repose, lies concealed beneath the reflected base of the anterior wings." Westwood specified the type in

1840 (Syn. Gen. Br. Ins. 107), as *nisella*, Cl. (=*bœberana*, F., Westw.). Those authors who have subsequently followed Wilkinson [Br. Tortr., 127-8 (1859)] in restricting the genus to species not possessing the costal fold, have succeeded in eliminating from it *all* the species originally included by Stephens, whether typical or otherwise. For the form which I have here to describe *Zeiraphera* is the oldest name and its type *corticana*, Hb., agrees with it in structure, but those who desire to follow Mr. Meyrick in including *wœberiana*, Schiff., in the genus to which this species belongs would be justified in using the name *Enarmonia*, Hb., of which *wœberiana* is the type.

Zeiraphera medioplagata, sp. n. (Pl. XII., fig. 18.)

Antennæ (broken). *Palpi* greyish white, apical joint touched with fuscous. *Head* and *Thorax* greyish. *Forewings* whitish, with some silvery waved lines around the darker margins; these consist of a dark reddish fuscous blotch, touching the costal margin beyond the middle and extending obliquely downwards to the outer and lower margins of the cell, where it is considerably dilated, and is nearly joined by a broad ferruginous streak from the apex, a branch of which also narrowly follows the apical margin; a grey shade extends from the base along the costal portion of the wing, reaching to, and slightly blending with the median blotch; a few small greyish spots along the costa before the apex and a faint ochreous tinge over the pale ground-colour on the apical portion of the wing; cilia whitish, with a strong fuscous dividing line which extends round the apex but does not reach the anal angle. *Exp. al.*, 14·5 mm. *Hindwings* pale greyish, with paler cilia, in which is a grey dividing shade. *Abdomen* pale greyish.

Type. ♂. Mus. Wlsm.

Hab. Colorado—Lee's Cabin, Micawber Mine (Custer Co.), August 7th, 1889. A single specimen received from Mr. T. D. A. Cockerell.

Eucelis, Hb.

Type. *Pyralis aurana*, F. (= *mediana*, Hb.)

Eucelis, Hb., Verz. bek. Schm., 394 (1826); † *Encelis*, Stph., Ill. Br. Ent. Haust., IV., 105 (1834); † *Eucelia*, H.-S. Schm. Eur., IV., 131, 177 (1848); *Eucelis*, Stph. List. Br. An. B. M. X., Lp., 60 (1852); † *Eucelia*, Lah. Fn. Suisse.

Tortr., 36 (1858); *Eucelis*, Wilk., Br. Tortr., 199–200 (1859); Stn. Man., II., 242 (1859).
= *Trycheris*, Gn., Ind. Meth., 56 (1845).
= §*Grapholitha*, Tr. (*Grapholita*, Tr., 1829, emend. 1830), Hein., Fern.

This genus, created by Hübner to include one species only, *aurana*, F., may fairly be taken to cover a much larger field. *E. aurana* is placed by recent authors in the genus *Grapholitha*, Tr., as restricted by Heinemann (Schm. Deutsch. Tortr., 177), but this very familiar name was preoccupied by Hübner [Verz. bek. Schm., 242–3 (ante 1826), type *rizolitha*, Schiff., Hb., *teste* Stph.] for a section of the *Noctuidæ*, and requires a substitute. Treitschke ignored, or possibly never saw Hübner's work. The type of his genus *Grapholitha* (*Grapholita*, Tr., 1829, emend. 1830), following Curtis' restriction of 1831, became fixed as *dorsana*, F., by Lederer, in 1859, when he eliminated from Treitschke's section B the species included in the new genus *Phthoroblastis*, Ld., and referred *petiverella* and its congeners to *Dichrorampha*.

Duponchel [Hist. Nat. Lp. Fr., IX., 22, 263–5 (1834)] cited *nisella*, Cl. (= *petrana*, Dp.) as the type of *Grapholitha*, but this species was not originally included by Treitschke and could not therefore have been his type; he overlooked also Curtis' restriction of the genus to Treitschke's section B, adopting the name for section A, in which he was followed by Stephens, Wilkinson, and Stainton.

Grapholitha has been used in Staudinger and Wocke's Catalogue in a still wider sense to include subgenera which possess the costal fold. In any case another name must be adopted for this genus on account of its pre-occupation, and also because all or nearly all the species included in it had previously received other generic names.

Without attempting clearly to define the range of the genus *Grapholitha*, Tr. (Hein.), which may yet be capable of subdivision under other of the older names, I have here substituted for it the Hübnerian name *Eucelis*.

The family name *Grapholithinæ*, Fern., must certainly share a similar fate, but taking *arcuella*, L., as perhaps more clearly typical of the majority of genera included in the *Trichophoridæ* (as representing the group of *Tortricidæ* which possesses hair on the upper edge of

the median vein near the base), I would suggest the adoption of *Olethreutinæ* corrected from *Olethreutæ*, Hb. (Tentamen), the family in which he placed his genus *Olethreutes*, which dating from 1806, I believe to be the oldest family name adopted for any species now classed with the *Grapholithinæ*, its type being *Olethreutes arcuella*.

Anticipating criticism on the ground of inconsistency, I may add that the manner in which Treitschke ignored Hübner's earlier work will render revision of his generic names absolutely necessary whenever the whole subject of the classification of the *Tortricidæ* and *Tineidæ* comes to be dealt with, but with respectful regard for conservative prejudices on both sides of the Atlantic, we may leave *Semasia*, *Pædisca*, and *Penthina*, as used in this paper on respite to come up for judgment when called upon. I have almost abandoned the hope that my friend Dr. Fernald will carry out his old intention of dealing with this subject in a comprehensive manner.

Eucelis larimana, sp. n.

Antennæ hoary greyish. *Palpi* recurved, somewhat slender, the apical joint very small; hoary greyish. *Head* hoary grey. *Thorax* greyish fuscous, with some hoary speckling, the ends of the tegulæ whitish. *Forewings* greyish fuscous, with minute hoary white speckling; a series of oblique hoary streaks along the costal margin, those before the middle being geminated, four or five beyond the middle single and whiter than the others; the third streak from the apex sends out a grey line to the cilia below the apex, interrupting a distinct black line which runs along their base; a reduplicated oblique white patch rests on the middle of the dorsal margin and is somewhat diffused along it towards the base; some white and steel grey mottling around the ocelloid patch which contains three black partially interrupted lines; cilia shining bronzy grey, with a black line along their base. *Exp. al.*, 14.5 mm. *Hindwings* grey brown, with whitish cilia, a brown line running through them near their base. *Abdomen* greyish fuscous. *Legs* white, tarsi faintly banded above.

Type. ♂. Mus. Wlsm.

Hab. Colorado—Loveland, 5,000 ft., June, 1890–91 (Smith).

Explanation of Plate XII.

[*See Explanation facing* Plate XII.]

Explanation of Plate XII.

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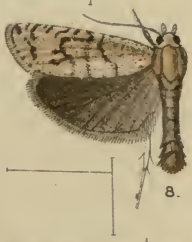
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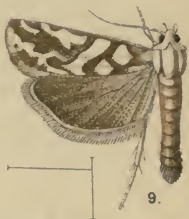
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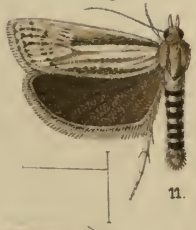
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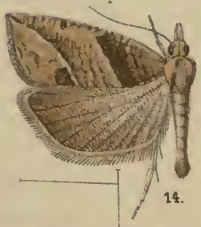
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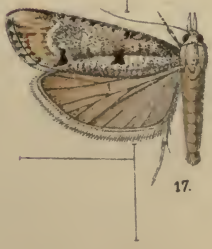
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F.W.Frohawk del. A.J.Wendel lith.

F.W.M.Trap Chromo.

[*From the* PROCEEDINGS OF THE ZOOLOGICAL SOCIETY OF LONDON, 1907.]

[Published May 1908.]

Microlepidoptera of Tenerife.

By the Right Hon. LORD WALSINGHAM, M.A., LL.D., F.R.S., F.Z.S.

(Plates LI–LIII, and Text-figures 241–243.)

In the Annalen of the K.-k. Naturhistorische Hofmuseum (Vienna) Professor Dr. H. Rebel has published a series of very interesting and instructive papers on the Lepidopterous Fauna of the Canary Islands; I desire now to record the result of a short visit to Tenerife, during which I was able to devote a good deal of attention to the *Microlepidoptera* of the island: a large proportion of these having been bred, it is satisfactory to be able to add some information upon their food-plants and larval habits. In the last of the papers above referred to, published in Vienna in 1906, Prof. Rebel gives a revised systematic catalogue and enumerates 87 species of *Microlepidoptera* (10 of which are merely indicated without special names under the genera to which they belong), 4 out of the remaining 77 not being recorded from Tenerife; we have therefore a residue of 73 species, to which the additions following in this paper may now be made, raising the total to 173 species (of which 70 are here described) distributed among 84 genera (seven of which are new). It is proposed to add some critical notes upon Rebel's List, where these seem to be required through the acquisition of additional information: the species not met with are merely inserted to facilitate reference.

I desire to express my very grateful thanks to Dr. George Perez, and to Dr. O. Burchard, for the great assistance they gave me in naming many plants which I should otherwise have been at a loss to determine; as also to the Rev. A. E. Eaton for numerous additions to my cabinet included in this paper.

I had moreover the great advantage of being allowed to examine Mr. W. W. White's collection at Guimar, enabling me more fully to appreciate the value of Dr. Rebel's work; nor can I forget that that author had already most kindly dealt with some material originally submitted to him from my collection. Without the encouragement offered by the complete and systematic manner in

which he undertook and continued his studies I could scarcely yet have ventured to work out my present collection.

In addition to the species named in the following pages a few others may be usefully indicated with a view to their identification by future collectors. I have still a number of living larvae in swelled shoots of *Lycium afrum*, collected at Puerto Orotava on April 27th. They are white with black heads, and were found on two only of several bushes growing along the narrow track leading eastward from the town along the middle of the rocky, abrupt slopes overhanging the sea. They feed in the interior of the base of the long thorn-like shoots which arise from the main branches, at some distance from the stem, causing them to swell perceptibly, but not distorting them. (Writing on September 1st: "None have yet changed to pupae, some have died.")

A larva found at Guimar on April 1st was very long and attenuated, of an ivory-white colour, burrowing along the pith in the interior of a stem of *Salvia canariensis*: this larva was alive a few days ago, but showed no sign of feeding or pupating.

Another larva, which gave me several days of fruitless work, mines the minute leaflets of *Plocama pendula*, hollowing them out, and leaving them white and transparent—a condition in which they rapidly become shrivelled, when all trace of the larval work is lost, except the little brown desiccated point of the leaflets. I found unmistakable traces at Santa Cruz, in January, at the Barranco di Honda, between Santa Cruz and Guimar, in February, and again in a small barranco, close to Guimar, in March, where I secured, at last, one living larva. It was of a very pale amber-yellow, and might have been a *Nepticula*; I failed to rear it.

A larva (possibly a *Phycid*) burrowing under the woolly clothing of the stems of *Phagnalon saxatile* is very abundant at Guimar, and was collected at sundry intervals during my stay there in March and April, producing only repeated disappointment.

During my visit to Tenerife a considerable number of *Macrolepidoptera* were collected which have been placed in the hands of others more competent than myself to deal with them; it may, however, be interesting to mention that I bred a specimen of *Eucrostis simonyi* Rbl. (= *Omphacodes *divincta* Holt-White, *nec* Wkr.), *Geometridae* Stgr-Rbl. I. 2899, from a conspicuous red larva found on *Frankenia ericifolia* on the coast near Guimar, 6. III, excl. 15. IV. 1907.

I. PTEROPHORINA.

Being of opinion that in Entomology "A special type must be a zoological entity in its imaginal form" (Merton Rules, 36), on which text a sermon has yet to be preached, I find myself unable to regard as of generic value embryonic characters unsupported

by imaginal differences, and thus obliged to discard no small portion of the generic nomenclature of Vol. V. of Mr. Tutt's 'British Lepidoptera.'

I. PTEROPHORIDAE.

1. (207) BUCKLERIA Tutt.

=**Trichoptilus* Meyr.; Stgr-Rbl. (nec Wlsm.).

I adopt Tutt's geneonym here as I entirely agree with him in separating *paludum* Z. and *siceliota* Z. from the Californian *pygmaeus* Wlsm., the type of *Trichoptilus* Wlsm., which has the fissure of the fore wings differently shaped, the lobes being more divergent.

♂—1. (1311) Buckleria (Stangeia) siceliota Z.

Pterophorus siceliota Z. Isis **1847**. 907 no. 450[1]. *Pterophorus* (*Aciptilia*) *siceliota* Z. Lin. Ent. VI. 401 no. 59 (1852)[2]. *Aciptilia siceliota* Mill. Ann. Soc. Linn. Lyon XXIX. 173–4. Pl. **4**· 3–5 (1882)[3]: Nat. Sic. V. 224 (1886)[4]. *Trichoptilus siceliota* Meyr. Ent. Mo. Mag. XXVI. 12 (1891)[5]; Stgr-Rbl. Cat. Lp. Pal. II. 71 no. 1311 (1901)[6]. *Stangeia siceliota* Tutt Br. Lp. V. 492 (1906)[7].

Hab. S. EUROPE—⊕ *Cistus salviaefolius*, *monspeliensis*, III–IV, excl. V–VI. SW. ASIA. N. AFRICA[5–7]. **Canaries**—Tenerife: Guimar, 14. IV., ⊕ *Cistus monspeliensis*, 28. III, excl. 24. IV – 6. V. 1907.

Taken and bred at Guimar from larvae similar to those which I used to find, and have reared successfully, on the same plant at Cannes.

2. (208) OXYPTILUS Z.

Crombrugghia Tutt Br. Lp. V. 449–51 (1906).

♂ – 2. (1314) Oxyptilus (Crombrugghia) distans Z.

Pterophorus distans Z. Isis **1847**. 902–3 no. 441[1]. *Pterophorus* (*Oxyptilus*) *distans* Z. Lin. Ent. VI. 345–6 no. 13 (1852)[2]. *Oxyptilus distans* Rbl. Ann. KK. Hofmus. IX. 16, 18 no. 137 (1894)[3]: XXI. 43 no. 173 (1906)[4]: Stgr-Rbl. Cat. Lp. Pal. II. 71 no. 1314 (1901)[5]. *Crombrugghia distans* Tutt Br. Lp. V. 451–67 Pl. **4**· 1–10 (1906)[6].

Hab. S. and C. EUROPE. WC. ASIA. **Canaries**[3–6]—Tenerife: Guimar, 25. III – 14. IV., ⊕ *Andryala pinnatifida*, 9–25. III, excl. 7. IV – 3. V. 1907; Puerto Orotava, 27. IV – 3. V. 1907 (*Wlsm.*); Forest de la Mina, 8. IV. 1894 (*Eaton*); La Laguna, 21. V. 1889 (*Krauss*)[3].

Prof. Rebel [Ann. KK. Hofmus. VII. 262–3 (1892)] records *Oxyptilus laetus* from Tenerife, La Palma, and Gran Canaria; he subsequently [Ann. KK. Hofmus. IX. 81 (1894)] records a single

specimen from Tenerife as *O. distans*, suggesting that it may be a spring form of his Canarian *laetus*, and in Staudinger and Rebel's Catalog (II. 1314) he treats *laetus* plus *distans* as two broods under one special name. In his last paper [Ann. KK. Hofmus. XXI. 43 (1906)] he retains both names, possibly through being unable to refer to the single specimen which he had recorded as *laetus*.

I found larvae at Guimar, feeding in March on the crowns of young plants of *Andryala pinnatifida*, completely covering themselves with the woolly débris of the consumed leaves; these produced up to the beginning of May typical forms of *Oxyptilus distans*, which I have compared satisfactorily with the actual types described by Zeller from Syracuse. They are, to all appearance, similar to all that I have previously bred from flowers and leaves of *Andryala sinuata* at Cannes and elsewhere. I have preserved specimens of the larvae for comparison with others from Europe.

Pterophorus laetus Z. Isis **1847**. 903 no. 442[1]. *Pterophorus* (*Oxyptilus*) *laetus* Z. Lin. Ent. VI. 346 no. 11 (1852)[2]. *Oxyptilus laetus* Rbl. Ann. KK. Hofmus. VII. 262–3, 282 no. 36 (1892)[3]: IX. 16, 81 no. 138 (1894)[4]: XXI. 43 no. 174 (1906)[5]. *Oxyptilus distans* Z. (II) *laetus* Stgr-Rbl. Cat. Lp. Pal. II. 71 no. 1314[a] (1901)[6]. *Crombrugghia laetus* Tutt Br. Lp. V. 459–60 (1906)[7].

Hab. S. EUROPE. WC. ASIA. N. AFRICA. **Canaries**[3–7]—La Palma, 25. VIII. 1889 (*Simony*)[3]—Tenerife: Bajomar, 25. V. 1907 (*Wlsm.*); 10. VIII. 1889 (*Simony*)[3]—Gran Canaria: Bco. de los Chorros (San Mateo), 1. VIII. 1890; Mogan, Bco. de los Hornos (Mogan), 4–20. VIII. 1890 (*Simony*)[3].

The only examples apparently agreeing with Zeller's type of *Oxyptilus laetus* were met with at Bajomar, on the sea-coast, where they were easily disturbed from flowering plants of *Andryala pinnatifida*; I brought home only three specimens, some full boxes being lost in my hurry to return to a waiting conveyance. These specimens are uniformly characterised by their slightly smaller size, by the lighter brown, rather than greyish, shade of the forewings, and by the notably bronzy brown tint of the hindwings, not to be found in my series of *distans* from the higher elevations. Tutt (Br. Lp. V. 450–1, 454–9) very strongly contends that there are two distinct species under the above names, and certainly seems to prove his case, but except perhaps by a careful examination of the genital segments, not yet undertaken, I confess to being unable to distinguish them with certainty through an extensive series, bred and captured from many remote localities. It seems indeed quite possible that these Tenerife specimens, obviously attached to the same plant, but at different dates and altitudes, may represent successive broods rather than truly distinct species. I suggest this without in any way disputing Mr. Tutt's conclusions, founded as they

are on differences in the genital segments, and on Dr. Chapman's very critical and careful study of the different larvae.

3. (209) PLATYPTILIA Hb.

3. (1339) Platyptilia (Amblyptilia Hb.) acanthodactyla Hb.

Alucita acanthodactyla Hb. Smlg. Eur. Schm. IX. Pl. 5 · 23–4 (1812?)[1]. *Pterophorus acanthodactylus* Stn. Ann-Mag. NH. (3 s.). III. 214 (1859)[2]. *Platyptilia acanthodactyla* Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 538 no. 1 (1894)[3]. *Amblyptilia acanthodactyla* Rbl. Ann. KK. Hofmus. XI. 115, 146 no. 149 (1896)[4]. *Platyptilia acanthodactyla* Rbl. Ann. KK. Hofmus. XXI. 36, 43 no 175 (1906)[5]: Stgr-Rbl. Cat. Lp. Pal. II. 73 no. 1339 (1901)[6]; Frnld. Bull. US. Nat. Mus. **52**. 443 no. 4939 (1902)[7]. *Amblyptilia cosmodactyla* Tutt Br. Lp. V. 273–99, Pl. 1 · A[1–6] (1906)[8].

Hab. EUROPE. W. ASIA. N. and S. AFRICA. **Madeiras**[2–4] —Madeira[2]: Funchal[3]. **Canaries**[1–3]—Tenerife: Santa Cruz, 8. II. 1907 (*Wlsm.*), 3. V. 1895 (*Hedemann*)[5]; La Laguna, 8. III. 1904 (*Eaton*), 13. V. 1907 (*Wlsm.*); Guimar, 10. IV. 1907 (*Wlsm.*); Puerto Orotava, 14–22. IV. 1895 (*Hedemann*)[5], 23. IV – 8. V. 1907 (*Wlsm.*)—Gran Canaria (*Hedemann*)[5]. UNITED STATES[7].

I must point out that I adopt this name for the Tenerife species in the same sense as it is used by Zeller, and Rebel, and not as referring to *punctidactyla* Hw., being at present unable to agree with Tutt (l. c. 8) in his interpretation of Hübner's figures 23-24, and 35–36 respectively.

4. (210) ALUCITA L.

=*Aciptilia* Hb.; *Pterophorus* Meyr. HB. Br. Lp. 435 (1895).

4. (1356·1) Alucita bystropogonis, sp. n.
(Plate LI. fig. 2.)

Antennae brownish grey. *Palpi* short, slender, porrect; brownish grey. *Head* and *Thorax* brownish grey, the latter becoming hoary grey posteriorly. *Forewings* brownish grey, the fissure extending approximately to half the wing-length; the apical lobe shows two narrow, elongate, smoky blackish cloud-spots on its costal margin, one about the middle of the lobe, the other half-way between this and the base of the fissure; between them the costa is white, and beyond them the lobe is white, with a small black dorsal spot before the apex; the tornal lobe is white, from the base of the fissure to its apex, its costal cilia white on the basal half and smoky black on the distal half of the lobe; the dorsal cilia of the apical lobe whitish beyond the fissure to two-thirds, thence smoky black below the apex; the dorsal cilia of the tornal lobe whitish, with a black spot a little before the middle of the lobe, their tips

slightly grey-shaded. *Exp. al.* 16–20 mm. *Hindwings* brownish grey; cilia slightly paler throughout, especially along their base on the dorsum of the tornal lobe. *Abdomen* brownish grey, with slender white lines along either side of the dorsum. *Legs* white, with smoky black patches at the base of each pair of white spurs.

Type ♀ (98768); ♂ (98769); ⊕ (98801) Mus. Wlsm.

Hab. TENERIFE: Forest de la Mina, 7. IV. 1904 (*Eaton*); Guimar. ⊕ *Bystropogon plumosus*, 28. III, excl. 4. IV – 29. V. 1907 (*Wlsm.*); La Laguna, 23. IV. 1907 (*Wlsm.*). Forty-three specimens.

Some varieties assume a decidedly browner tint than the type, and in these the white cilia are often so modified by the extension of the brown suffusion, especially within and below the fissure, as to alter considerably the general appearance of the insect: there are several intermediate degrees of such modification in a bred series.

The larva feeds on *Bystropogon plumosus*, drawing together the leaves and young flower-buds on the leading shoots; it attains a length of 11 mm., and is very pale glaucous green, covered with short and somewhat spatulate hairs, among which longer diverging hairs, arising each from a minute brownish pimple, are ranged in groups along either side of a faint greyish dorsal shade and along the spiracular line; the head is very pale amber-brown. The pupa, which has a line of elongate black spots along the dorsum, is covered with scattered groups of hairs of varying length, the shorter ones not spatulate as in the larva. It is attached posteriorly to the leaf of its food-plant without any encircling band.

I received this insect first from the Rev. A. E. Eaton, taken in the Forest of La Mina, and lately found it abundant above Guimar, but, like its food-plant, it is somewhat local. It reminds one closely of *Gypsochares baptodactyla* Z., and is very similarly coloured, but the lobes of the hindwings are more slender and the fissure of the forewings somewhat deeper. There is a very noticeable difference also in the pupa: that of *Gypsochares baptodactyla* has a line of conspicuous elongate black spots on either side of the dorsum, whereas the pupa of *bystropogonis* has but one mediodorsal line of spots.

— 5. (1365·1) ALUCITA PARTICILIATA, sp. n. Alucita parbolias, b
(Plate LI. fig. 3.)

=**Aciptilia tetradactyla* Rbl. Ann. KK. Hofmus. VII. 263, 280 no. 39 (1892): XXI. 43 no. 177 (1906).

Antennae white, speckled above with brownish grey. *Palpi* porrect, slender; whitish, with a dark spot at the base of the terminal joint, which extends a little beyond an obtuse short frontal tuft. *Head* and *Thorax* brownish ochreous. *Forewings* brownish ochreous at the base, blending to pale straw-whitish beyond; costa narrowly smoky blackish, this colour suffusing the whole of the costal cilia, except about the extreme apex; the

fissure extends to a little more than the wing-length; the cilia of the tornal lobe, and of the lower margin of the apical lobe, distinctly straw-white on their basal half and smoky blackish on their outer half (this distinct division in the basal and distal colouring of the cilia is in itself amply and uniformly sufficient to separate *particiliata* from *tetradactyla* L., in which the cilia are darkened throughout). *Exp. al.* 20–22 mm. *Hindwings* brownish ochreous; cilia of all the lobes smoky fuscous on their costal margins, whereas on their dorsal margins the basal two-thirds are straw-white, the distal third only fuscous. *Abdomen* whitish, especially at the base, with a narrow dorsal, and wider lateral brownish grey lines. *Legs* white.

Type ♂ (98810); ♀ (98816) Mus. Wlsm.

Hab. TENERIFE: Santa Cruz, 23. XII – 12. II. 1907; Puerto Orotava, 21. IV. 1907. Fifteen specimens.

Having mistaken this species in the field for *tetradactyla* L., no special search for the larva was undertaken, but I strongly suspect that two green and slightly hairy larvae found on *Lavandula abrotanoides* at Santa Cruz, which I unfortunately failed to rear, must have belonged to it.

Rebel records worn specimens of *Aciptilia tetradactyla* from Pedro Gil (Tenerife, 1600 m., 30. VII. 1889—*Simony*), and from Gran Canaria (*Richter*). As Pedro Gil is on very high ground the date is not surprising, but it is at least probable that these specimens (which I have not seen) belong to the same species which occurs so abundantly at Santa Cruz in January and February, and of which I have a single specimen taken at Puerto Orotava on April 21st. I certainly thought the species was *tetradactyla* when I took it, indeed I should have secured more specimens had I then recognised it as new.

hedemanni, Rebel 1896 =

6. (1365·2) ALUCITA HESPERIDELLA, sp. n.

Antennae pale brown, speckled with white. *Palpi* short, porrect, slender, scarcely projecting beyond the face; pale brown. *Head* and *Thorax* pale buff-brown. *Forewings* pale buff-brown, the costa narrowly white, more conspicuously before the apex, a small, oblique, inverted darker greyish streak a little beyond the middle (sometimes obsolete); the fissure extends approximately to half the wing-length, the tornal lobe being white along its upper half from the base of the fissure to its apex, the cilia tinged with brownish grey, as also are those of the apical lobe. *Exp. al.* 16–18 mm. *Hindwings* pale greyish brown; cilia the same, becoming whitish at the apex of the tornal lobe. *Abdomen* pale greyish brown, with whitish dorsal line. *Legs* white, a slender greyish line along their outer sides.

Type ♀ (98825); ♂ (98827); ⊕ (98829) Mus. Wlsm.

Hab. TENERIFE: IV. 1884 (*Leech*); Santa Cruz, 13–31. I. 1907 (*Wlsm.*); Guimar, 21. III. 1904 (*Eaton*), 2. III – 14. IV. 1907, ⊕ *Micromeria varia*, 23. III, excl. 16–26. IV. 1907 (*Wlsm.*); Puerto

Orotava, 27. IV – 8. V. 1907 (*Wlsm.*); La Laguna, 23. V. 1907 (*Wlsm.*); Tacaronte, 31. V. 1907 (*Wlsm.*). Fifty-nine specimens.

Common at Guimar, Santa Cruz, Orotava, etc. The larva is slightly hairy, the hairs arranged in small divergent fascicules; it is of a dull glaucous green, with narrow, parallel, paler dorsal and spiracular lines; head pale brown; it tapers slightly toward the anal segments; all the legs uniformly of the same colour as the body. It feeds on the leaves of *Micromeria varia*, from which it is not difficult to sweep or beat it into the net.

Text-fig. 241.

Alucita hesperidella (93829).

The species greatly resembles *Gypsochares olbiadactyla* Mill., to which it is precisely similar in the distribution of the white margins. Some specimens are distinguishable by the possession of a costal spot, but the uniformly more slender apical lobe of the forewings at once distinguishes it from the more robust *Gypsochares* which in other respects it might almost be said to mimic. Many years ago I received two specimens from the late Mr. J. H. Leech, which stood in my cabinet as doubtfully distinct from *olbiadactyla* until I bred that species.

5 (213) GYPSOCHARES Meyr.

7. (1381) Gypsochares olbiadactyla Mill.

n. syn.=*hedemanni* Rbl.; [=*leptodactyla* Stgr. *LN.*[10]].

Pterophorus olbiadactylus Mill. Ic. Chen-Lp. I. 89–91. Pl. 5 · 1–3 (1859)[1]. *Aciptilia olbiadactyla* Stgr-Wk. Cat. Lp. Eur. 344 no. 3199 (1871)[2]; Mill. Cat. Lp. Alp-Mar. 382–3 (1875)[3]; Hrtm. MT. Münch. Ent. Ver. IV. 68 no. 1399 (1880)[4]; Mill. Nat. Sic. V. 224 no. 3199 (1886)[5]. *Gypsochares hedemanni* Rbl. Ann. KK. Hofmus. XI. 115–6, 146 no. 156, Pl. 3 · 3 (1896)[6]: XXI. 43 no. 178 (1906)[7]: Stgr-Rbl. Cat. Lp. Pal. II. 75 no. 1382 (1901)[8]. *Gypsochares olbiadactyla* Stgr-Rbl. Cat. Lp. Pal. II. 75 no. 1381 (1901)[9]; Wlsm. Ent. Mo. Mag. XXXVII. 234–5 (1901)[10].

Hab. S. France[1–5, 9]—Hyères, ⊕ [*lichen on rocks?*[1]] 25. III[1–4], excl. IV – V[4]; l'Estérel, 30. IV. 1877[5]: S. Spain[10]: Malaga[10], 28. I., 15–17. IV. 1901 (*Wlsm.*); Chiclana, ⊕ *Phagnalon rupestre*[10], e. II, excl. 27. III – 1. IV. 1901 (*Wlsm.*). Canaries—Tenerife: Santa Cruz, ⊕ *Phagnalon saxatile*, 21. I – 3. II, excl. 18. II – 12. IV. 1907 (*Wlsm.*); La Laguna, 23. II. 1904 (*Eaton*); Puerto Orotava, 15–22. IV. 1895 (*Hedemann*)[6], 27. IV. 1907 (*Wlsm.*); Guimar, 2. III – 12. IV. 1907, ⊕, 27. II, excl. 28. IV. 1907 (*Wlsm.*).

Prof. Rebel described his *Gypsochares hedemanni* from specimens

collected at Orotava in April; I found the same quite abundant in the larval stage on *Phagnalon saxatile* at Santa Cruz and Guimar, and saw traces of it in other localities where its food-plant occurs. Many years ago Millière gave me a specimen of his *olbiadactylus*, taken in the Estérel (vide Nat. Sic. V. 224): I was therefore well-acquainted with his species, which I have taken in Spain and reared from *Phagnalon rupestre* there. Millière figures and describes the larva and pupa, but he omits to mention whether he actually bred or captured the imago. He suggests that the larvae feed on lichens growing on the rocks where they were found, but he adds that they did not eat in captivity, and quickly pupated. I know that *Phagnalon saxatile* is common in the locality where he discovered the species, and where I have myself searched for it unsuccessfully when in ignorance of its food-plant. His figure of the larva shows no black dorsal spots, nor does he describe them, but the Tenerife larvae (and, if I rightly remember, the Spanish larvae also) possessed a line of such spots, one on each segment. It is open to doubt whether the larvae recorded by Millière on rocks were not those of *Alucita tetradactyla* L., which is abundant on the same spot. After very careful comparison of specimens with Millière's figure, and with the exponent received from him there remains no possible doubt that *Gypsochares hedemanni* as figured and described by Rebel, and represented by a named specimen in Mr. W. W. White's collection, is the same as *Pterophorus olbiadactylus* Mill. I have received the same species from Spain from Dr. Staudinger under the logonym "*leptodactyla*." The traces of the larva are easily recognised by the curling-back of the woolly underside of the leaves from which it has eaten the upper surface and parenchyma, thus exhibiting small white spots distributed about the plants on which it has fed: this is similar to the effect produced by larvae of *Alucita adamas* Cnst., on *Staehelinus*—a noticeable sign of its presence, to which I called my late friend's attention before he was himself acquainted with the larva, and before we had either of us seen the imago.

Text-fig. 242.

Gypsochares olbiadactyla (98902).

6. (214) PTEROPHORUS Geoffr.

= *Alucita* Meyr. HB. Br. Lp. 438 (1895); *Emmelina* Tutt Br. Lp. V. 97 (1906).

♂ — 8. (1387) Pterophorus monodactylus L.

Phalaena Alucita monodactyla L. Syst. Nat. ed. X. 542 no. 300 (1758)[1]. *Pterophorus monodactylus* Alphk. Mem. Lp. V. 231

no. 57 (1889)[2]; Holt White B. & M. Ten. 95 (1894)[3]. *Alucita monodactyla* Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 539 no. 3[4]. *Pterophorus monodactylus* Rbl. Ann. KK. Hofmus. VII. 263, 282 no. 38 (1892)[5]: IX. 16, 81 no. 140 (1894)[6]: XI. 115, 146 no. 153 (1896)[7]: XXI. 43 no. 179 (1906)[8]; Stgr-Rbl. Cat. Lp. Pal. II. 75 no. 1387 (1901)[9]; Frnld. Bull. US. Nat. Mus. **52**. 446 no. 4981 (1902)[10].

Hab. EUROPE. W. ASIA. N. AFRICA. N. AMERICA. **Madeiras**[4-9]—MADEIRA: (*Wollaston*)[4]. **Canaries**[2-8]—HIERRO: 28. VIII. 1889 (*Speyer*)[5-8]—TENERIFE[2-8]: ⊕ *Convolvulus floridus*[6]; IV. 1884 (*Leech*); Santa Cruz, 28. I. 1907 (*Wlsm.*), 3. V. 1885 (*Hedemann*)[7], 25. V. 1907 (*Wlsm.*); Puerto Orotava, 1887 (*Sievers*)[2]; 3. V. 1907 (*Wlsm.*); Bajomar, 25. V. 1907 (*Wlsm.*)—GRAN CANARIA: Las Palmas, 7. V. 1895 (*Hedemann*)[7-8].

This species occurred everywhere in Tenerife.

9. (1393) PTEROPHORUS (LIOPTILUS Wlgrn.) INULAE Z.

Pterophorus (*Pterophorus* Z.) *inulae* Z. Lin. Ent. VI. 384–6 no. 41 (1852)[1]. *Pterophorus inulae* Stgr-Rbl. Cat. Lp. Pal. II. 76 no. 1393 (1901)[2]. *Leioptilus sp.* Rbl. Ann. KK. Hofmus. IX. 16, 81 no. 141 (1894)[3]: XXI. 43 no. 176 (1906)[4].

Hab. GERMANY. AUSTRIA. **Canaries**—TENERIFE: IV. 1884 (*Leech*); Santa Cruz, ⊕ *Inula viscosa*, 10. I, excl. 24. I – 14. II., 29. IV. 1907 (*Wlsm.*); Guimar, 13. III – 10. IV., ⊕ *Inula viscosa*, III, excl. 23. III – 7. IV. 1907 (*Wlsm.*); Puerto Orotava, 29. IV – 4. V. 1907 (*Wlsm.*); La Laguna, 23. V. 1907 (*Wlsm.*).

Prof. Rebel records an "unbestimbares Fragment" of a species of *Leioptilus* from Guimar, 16. V. 1889 (*Krauss*); this was probably *inulae* Z., which is common and widely distributed in Tenerife. It seems to occur wherever *Inula viscosa* is abundant, as at Guimar, Santa Cruz, Puerto Orotava, etc. I bred specimens from larvae boring the leading shoots; they were easily distinguished by their dull glaucous green colour, and by a conspicuous series of blackish dorsal spots.

10. (1395·1) PTEROPHORUS (LIOPTILUS) MELANOSCHISMA, sp. n. (Plate LI. fig. 1.)

Antennae smoky bone-colour. *Palpi* slender, porrect, projecting less than the length of the head beyond it; smoky fuscous above, pale beneath. *Head* smoky fuscous; face straw-whitish. *Thorax* pale, or sometimes brownish, straw-colour. *Forewings* pale straw, sometimes darker brownish straw—in both cases fading somewhat on the dorsal half; a very narrow fuscous line along the costa to two-thirds from the base; the fissure extends to two-fifths of the wing-length; the cilia within the fissure are uniformly fuscous, connected with a dark fuscous spot at the base of the fissure, which is distinctly visible on the underside; the dorsal cilia are also fuscous. *Exp. al.* 16–17 mm. *Hindwings* and cilia brownish

grey, the surface of the lobes somewhat shining. *Abdomen* concolorous with the hindwings. *Legs* straw-white, or straw-brownish, unspotted.

Type ♂ (98934); ♀ (98935) Mus. Wlsm.

Hab. TENERIFE: Santa Cruz, 21. I – 9. II., ⊕*Phagnalon saxatile*, 31. I, excl. 27–29. III. 1907; Guimar, 12. III. 07; Puerto Orotava, 29. IV. 07. Seven specimens.

The larva feeds in the flowers of *Phagnalon saxatile*, but the species is not abundant. It is closely allied to *pectodactylus* Stgr. (=*chrysocomae* Rgt.), but differs especially in the darkened cilia of the fissure reaching fully to the base; these are very conspicuous.

7. (215) STENOPTILIA Hb.

11. (1406) STENOPTILIA (ADKINIA Tutt) BIPUNCTIDACTYLA Sc.

Phalaena bipunctidactyla Sc. Ent. Carn. 257 no. 673 (1763)[1]. *Pterophorus* (*Pterophorus* Z.) *serotinus* Z. Lin. Ent. VI. 361–4 no. 27 (1852)[2]. *Mimaeseoptilus serotinus* Rbl. Ann. KK. Hofmus. VII. 263, 282 no. 37 (1892)[3]: XXI. 43 no. 180 (1906). *Stenoptilia bipunctidactyla* Stgr-Rbl. Cat. Lp. Pal. II. 76 no. 1406 (1901)[5]. *Adkinia bipunctidactyla* Tutt Br. Lp. V. 97, 334–60 (1906)[6].

Hab. EUROPE. WC. ASIA. N. AFRICA. **Canaries**—TENERIFE[3–6]: 2. VIII. 1889 (*Simony*)[3]; Santa Cruz, 8–16. II. 1907 (*Wlsm.*); Guimar, 14. III – 12. IV. 1907 (*Wlsm.*); Puerto Orotava, 4. V. 1907 (*Wlsm.*); La Laguna, ⊕ *Bartsia trixago*, 12. VI, excl. 1. VII. 1907 (*Wlsm.*).

Common at Santa Cruz, Guimar, and Orotava. Two specimens were bred on July 1st from larvae found feeding on *Bartsia trixago*, at La Laguna, on June 12th. These larvae were noted as pale green, with purplish dorsal line; with groups of hair distributed evenly on each segment, and with minute black tubercular spots above the spiracles: they agreed well with Tutt's description of the larva of *bipunctidactyla* (Br. Lp. V. 350), to which species I have no doubt the Tenerife specimens are rightly referred.

II. AGDISTIDAE.

8. (216) AGDISTIS Hb.

Rebel records only two species, *tamaricis* Z. and *canariensis* Rbl.; I am now able to add *frankeniae* Z., *salsolae* sp. n., and *staticis* Mill.

12. (1420) AGDISTIS FRANKENIAE Z.

Adactyla frankeniae Z. Isis **1847**. 900–2 no. 439[1]. *Agdistis frankeniae* Z. Lin. Ent. VI. 321 no. 1 (1852)[2]; Stgr-Rbl. Cat. Lp. Pal. II. 77 no. 1420 (1901)[3]; Chpm. & Tutt Br. Lp. V. 128–30, 131–2 (1906)[4]; Wlsm. Ent. Rec. XIX. 53–5 (1907)[5].

Hab. S. EUROPE[1–5]—SICILY[1]. CORSICA: Punta Parata, 5. V.

1896 (*Wlsm.*). Spain: cadiz: Chiclana, ⊕ *Frankenia pulverulenta*, 27. I, excl. 2. II. 1901 (*Wlsm.*). N. Africa[3]—Algeria: Biskra, Hammam-es-Salahin, 5. III – 2. IV. 1903, 14. V. 1903, ⊕ *Frankenia*, 10–22. III, excl. 13. III. 1906, 19. III – 23. IV. 1903 (*Wlsm.*). **Canaries**—Tenerife: Guimar, 6. III. 1907, ⊕ *Frankenia ericifolia*, 6. III. excl. 6–24. IV. 1907 (*Wlsm.*); Puerto Orotava, 11. III. 1904 (*Eaton*), 21. IV – 14. V. 1907 (*Wlsm.*); Tejina, 18. III. 1902 (*Eaton*); Bajomar, 25. V. 1907 (*Wlsm.*).

This is very common on the coast on *Frankenia ericifolia* and possibly on other species of the genus; the larvae are extremely similar to those of what I must (*pace* Tutt) regard as the very closely allied *Agdistis* (*Ernestia* Tutt) *lerinensis* Mill., but, like the perfect insects, considerably smaller. Although variable in size the Tenerife specimens agree better with Zeller's original types from Sicily than with the uniformly larger specimens which I found at Biskra (Algeria). I took and bred many specimens, including a single example at light at Guimar, 1200 ft. above the sea-level, at which alone its food-plant grows.

13. (1420·1) Agdistis salsolae, sp. n.

Antennae stone-grey, a dark spot on the basal joint. *Palpi* very short, the median joint rough, hoary grey; terminal joint blackish, not projecting beyond the frontal clothing. *Head* and *Thorax* hoary stone-grey. *Forewings* hoary stone-grey, minutely speckled with black, except on the more thinly clothed, slaty grey, triangular fold-space; the outer third of the costa narrowly white, showing four strong, black, oblique spots, the apex of the wing also black, including the apical cilia; on the lower edge of the fold-space are two strong, elongate, black spots, preceded by a smaller one at the angle of the fold, and followed by another, more conspicuous, and including the cilia at the tornus, before the base of which it is produced upward along the termen; terminal cilia greyish white, a slender blackish line along their middle. *Exp. al.* 16-18 mm. *Hindwings* slaty grey, with some black speckling on their lower half; cilia whitish grey, a slender shade-line along their middle. *Abdomen* brownish grey, with slender white dorsal and lateral lines. *Legs*, posterior pair white, thickly sprinkled with greyish fuscous scales—less thickly on the anterior extremities of the joints.

Type ♂ (98356) Mus. Wlsm.

Hab. Tenerife: Puerto Orotava, ⊕ *Salsola oppositifolia*, 30. IV – VI, excl. 5. VI – 16. VII. 1907. Six specimens.

The larva is yellowish brown, varying to grey-brown (precisely the colour of dead leaves and stalks of the food-plant); it has a group of four small tubercular excrescences on the prothorax, followed by two much larger and more elevated humps on the mesothorax, each tipped with a black spot; a much shorter pair, also black-tipped, and rather wider apart on the metathorax; on

the first abdominal somite are four black dots in two pairs, one behind the other, while on the anterior half of the remaining somites are some more or less strongly indicated slender, blackish, oblique lateral lines; the ninth abdominal somite with two short black protuberances above. Type ⊕ (98418) Mus. Wlsm.

Text-fig. 243.

Agdistis salsolae (98418).

This larva differs in structure from others of the genus, and especially by its much higher metathoracic humps from that of *frankeniae* Z., although in the imago the two species can scarcely be distinguished.

Agdistis salsolae is more easily recognised by a glance at the underside than in any other way, for here *frankeniae* shows only some rather obscure spots on its dull costa, the tornal and apical shades being also insignificant, whereas in *salsolae* the white costa of the forewings shows very clearly on the under side, making the four costal spots very distinct; the apical and tornal patches in the cilia are also very clear, and the limbus of the hindwings is thickly sprinkled with black scales, a raised brush of the same along the cubitus. In *salsolae* the legs are also somewhat stouter and more distinctly mottled, while scarcely any trace is shown of the subcostal spot at the end of the plical space which is always to be found in *frankeniae*; the spots are also usually larger and more conspicuous, but in bred specimens of both species this is scarcely a reliable character.

The larva is extremely difficult to rear, and I was successful with only six out of some sixty collected.

14. (1425) Agdistis canariensis Rbl.

Agdistis canariensis Rbl. Ann. KK. Hofmus. XI. 114–5, 146 no. 148 (1896)[1]: XIII. 380 no. 161 (1899)[2]; XXI. 36, 43 no. 181 (1906)[3]: Stgr-Rbl. Cat. Lp. Pal. II. 78 no. 1425 (1901)[4].

Hab. **Canaries** [1-4] — Tenerife [1-4]: Santa Cruz, 3. V. 1895 (*Hedemann*)[1]; Puerto Orotava, 20. IV – 3. V. 1907 (*Wlsm.*). Fuerteventura [3]: 15. V. 1905 (*Polatzek*)[3].

I have but little to add to what has been already published: a specimen in Mr. White's collection is probably correct, and exhibits the white unspotted costa, beyond the middle of the forewing, specially noted in the original description, and sufficing to separate this from others of the genus. I had at first regarded it as probably a mere variety of some other species, but the distinguishing character is very clearly shown in a specimen (98415) taken at Puerto Orotava, 3. V. 1907, which can only be compared with the nearly allied *adactyla* Hb.

I met with a single small larva (98417) at Guimar, on March 11th, on *Phagnalon saxatile*, the flowers of which it continued to eat very sparingly until it died on May 25th: persistent efforts to find other specimens were unsuccessful. The brownish larva, less than $\frac{1}{4}$ inch in length, has a pair of small projecting pronotal tubercules, and a metanotal pair, larger and more erect, also an anal tubercule; on all the segments are short, reflexed, bristles, arising from pairs of small tubercular excrescences. It differs somewhat from the larva of the allied *satanas* Mill., and I had regarded it as probably that of *adactyla* Hb., with which I am not personally acquainted, until observing the close alliance of the imago of *canariensis* Rbl. to that species. There can be little doubt that this was the larva of *canariensis*, although I so unfortunately failed to rear it.

(1426) Agdistis satanas Mill.

Agdistis satanas Mill. Bull. Soc. Ent. Fr. XLIV. (5 s. V: 1875). p. clxvii (1875) [1]; Cat. Lp. Alp-Mar. 377–8. Pl. 2·9 (1875) [2]: Nat. Sic. V. 221–2 no. 3114 bis (1886) [3]: Stgr-Rbl. Cat. Lp. Pal. II. 78 no. 1426 (1901) [4]; Wlsm. Ent. Rec. XIX. 53 (1907) [5].

Hab. S. France [1-5]: Cannes, ⊕ *Scabiosa candicans* VI, excl. VII [4].

In Mr. Tutt's recently published 'British Lepidoptera' [V. 129, 136 (1906)] some doubt is expressed as to whether a larva which I submitted to Dr. Chapman as that of *Agdistis satanas* Mill. is really an *Agdistis* at all: this opportunity may be taken to record the evidence upon which the identification rests. My experience in attempting to rear *canariensis* was precisely similar to that of Millière, and the failure may probably be attributed to the hibernating habits of the larvae of this group coming into premature practice through the necessity of keeping the bottles containing them in a comparatively cool temperature. I extract the following abridged notes from my voluminous correspondence with my late friend Monsieur Millière:—In 1885 Millière had two larvae which he believed to be those of *Agdistis satanas*. He was taking great care of them—one disappeared, the other fixed itself up for pupation, but did not change, drying up, but preserving its form, so that he could figure it. In his letter to me, of August 19th, 1885, he mentions this fact and adds "car je crois avoir acquis la preuve que c'est bien la chenille de *Satanas*." The proof appears in the following translation: 'One female of this *Agdistis* has had the good thought to lay ten fertile eggs, but I have not been able to feed the little caterpillars, which have not touched anything and have died of hunger. I have preserved in spirit some of these young larvae, which, under a strong lens, seem to me to have all the characters of the caterpillar which you have prepared for your collection. I can send you these larvae obtained *ab ovo*.' I have empty egg-shells, sent at that time, but cannot find the larvae in spirit.

In June 1886 Millière published (Nat. Sic. V. 221–2) the following additional information on *Agdistis satanas*:—

"*Obs.* Au dernier moment je trouve à l'habitat de la *Satanas*, la chenille de cette *Agdistis* qui, du 15 au 25 juin, est parvenue à son entier développement. Elle se nourrit sur la *Scabiosa candicans* dont elle ronge les feuilles, et sans doute sur d'autres plantes sous-ligneuses.

"Cette larve rappelle la chenille de sa congénère *Heydenii*, mais elle est plus courte, avec les caroncules dorsales moins développés et les poils longs et raides, dont elle est couverte, dépourvus, à l'extrémité, du petit renflement spatulifère qu'on remarque chez sa voisine.

"L'état léthargique dure à peine un mois.

"L'*Agd. Satanas* qui n'a qu'une génération pond rarement en captivité, cependent une ♀ enfermée en un tube de verre, ayant pondu une 30e d'œufs, j'ai pu les étudier. Ces œufs sont relativement gros, elliptiques, blanchâtres, et profondement cannelés en long; leur éclosion eut lieu 15 jours après.

"La jeune ch. se montre alors à peu près ce qu'elle sera à ses divers âges. Elle passe l'hiver fixée à une tige sèche, dissimulée dans les brindilles herbacées."

♂—15. (1428) AGDISTIS (HERBERTIA Tutt) TAMARICIS Z.

Adactyla tamaricis Z. Isis **1847**. 899 no. 438 · 1 [1]. *Agdistis tamaricis* Z. Lin. Ent. VI. 325–6 no. 7 (1852) [2]; Meyr. Ent. Mo. Mag. XXII. 106 (1885) [3]; B-Bkr. Tr. Ent. Soc. Lond. **1894**. 50 [4]; Rbl. Ann. KK. Hofmus. XI. 115 (1896) [5]: XIII. 376, 380 no. 162 (1898) [6]: XXI. 43 no. 182 (1906) [7]: Stgr-Rbl. Cat. Lp. Pal. II. 78 no. 1428 (1901) [8]. *Herbertia tamaricis* Chpm. & Tutt Br. Lp. V. 129–30, 132, 135, 253 (1906) [9]. *Agdistis tamaricis* Wlsm. Ent. Rec. XIX. 54, 55 (1907) [10].

Hab. S. EUROPE [1–2, 8]. WC. ASIA [8]. AFRICA—EGYPT: Alexandria [4]—ALGERIA [10]: Biskra, Hammam-es-Salahin, 6. III – 28. IV. 1903, 3. IV. 1904, ⊕ *Tamarix*, 9. III, excl. 10. IV. 1904 (*Wlsm.*). **Canaries** [6–8]—TENERIFE: Santa Cruz, 30. IV. 1898 (*Hintz*) [6]; ⊕ *Tamarix gallica*, 14. I, excl. 27. II – 8. IV. 1907, ⊕ 24. V, excl. 13–15. VI. 1907 (*Wlsm.*). **Cape de Verdes**: St. Vincent [3, 5–6, 10].

Abundant in many parts of the Island, and no doubt thus widely distributed owing to the prevailing custom of planting *Tamarix* along the sides of the main roads so far as these extend. Preserved larvae compared with European and Algerian specimens show a curious modification in form, the tuberculous excrescences on the prothorax and mesothorax, and on the second, fifth, and ninth abdominal somites, although similarly placed, are distinctly exaggerated, being at least one-third longer than in European specimens, a peculiarity in which they are at least closely approached by larvae from Algeria. I am unable to find any difference in the imago.

♂—16. (1430) AGDISTIS (ADACTYLUS Crt.) STATICIS Mill.

Agdistis staticis Mill. Bull. Soc. Ent. Fr. XLIV. (5 s. V: **1875**). p. clxvii (1875) [1]: Cat. Lp. Alp-Mar. 375–6. Pl. **2** · 4–8 (1875) [2]: Wlsm. Ent. Mo. Mag. XXVII. 141 (1891) [3]; Stgr-Rbl. Cat. Lp. Pal. II. 78 no. 1430 (1901) [4]. *Adactylus staticis* Chpm. & Tutt Br. Lp. V. 128–30 (1906) [5]. *Agdistis staticis* Wlsm. Ent. Rec. XIX. 53–4 (1907) [6].

Hab. S. FRANCE [1–6]: Ile Ste Marguerite [1–2]; Beaulieu [3]; ⊕ *Statice cordata*, III, excl. 15. V. 1890 [3]; ⊕ V, excl. VIII [1–2]. ALGERIA [6]: Ain-Oumash [6], Biskra [6], Hammam-es-Salahin [6], ⊕ *Statice limonium* [6], 2. III – 5. IV, excl. 28. IV. 1903, 23. III – 13. VI. 1906 (*Wlsm.*). **Canaries**—TENERIFE: Puerto Orotava, ⊕ *Statice pectinata*, 8. V, excl. 29. V – 13. VI. 1907 (*Wlsm.*).

The moths bred at Puerto Orotava from larvae on *Statice pectinata* are of a distinctly darker shade than those from Cannes and Biskra, but perhaps this may be partially due to fading in the older specimens; the larvae are similar.

The larvae of *lerinensis* Mill. could not be found among those of *staticis* as they were at Cannes and Biskra.

II. ORNEODINA.

I. ORNEODIDAE.

9. (217) ORNEODES Ltr.

17. (1438) Orneodes hübneri Wlgrn.

Alucita hexadactyla Hb. Smlg. Eur. Schm. IX. Pl. 6 · 30–1 (1818)[1].
Alucita hübneri Wlgrn. Kngl. Vet-Ak. Hndl. III. (7). 24 (1859)[2].
Orneodes hübneri Stgr-Rbl. Cat. Lp. Pal. II. 78 no. 1438 (1901)[3]: Rbl. Ann. KK. Hofmus. XXI. 36, 43 no. 183 (1906)[4].

Hab. EUROPE[1–3]. **Canaries**[4]—Tenerife: Guimar (*W. W. White*)[4].

Prof. Rebel records *hübneri* from Guimar on the authority of Sir George Hampson. My only knowledge of this species in Tenerife is derived from specimens in Mr. White's collection.

III. TINEINA.

I. GELECHIADAE.

10. (297) METZNERIA Z.

18. (2487·1) Metzneria insignificans, sp. n.

Antennae snow-white, faintly annulate with greyish fuscous. *Palpi* moderately recurved, the median joint somewhat coarsely scaled, but scarcely roughened beneath; stone-whitish, sprinkled with fawn-brown and greyish fuscous. *Head* and *Thorax* stone-whitish, sprinkled with fawn-brown. *Forewings* stone-whitish, profusely sprinkled with pale fawn-brown and pale greyish fuscous scales; there is a faint indication of a small spot at the end of the cell, preceded by another in the middle of the wing, and the line of the fold is sometimes slightly tinted with ochreous; cilia speckled as on the wing-surface, and with a scarcely perceptible oblique shade-line before their tips. *Exp. al.* 10–11 mm. *Hindwings* iridescent pale bluish grey, with rosy reflections; cilia very pale brownish cinereous. *Abdomen* iridescent, bluish grey. *Legs* pale brownish cinereous.

Type ♂ (14145) Mus. Wlsm.

Hab. Tenerife: Guimar, 1700 ft., 20. III. 1904 (*Eaton*); Santa Cruz, 3. IV. 1904 (*Eaton*). Two specimens.

I did not meet with this species.

19. (2488·1) Metzneria infelix, sp. n.

Antennae stone-whitish, faintly annulate with greyish fuscous. *Palpi* stone-whitish, shaded with fuscous along their outer sides. *Head* and *Thorax* stone-whitish, sprinkled with fawn-grey. *Forewings* stone-whitish, with a slight ochreous tinge, freely sprinkled with fawn-grey, especially along the costa, along the upper edge

of the outer end of the fold, and about the termen; a small fuscous spot in the fold, scarcely before the middle of the wing, is followed by a larger more elongate discal spot, scarcely beyond the middle, another lying at the end of the cell; a few of the scales along the termen are tipped with fuscous, a slight sprinkling also occurring along the middle of the greyish ochreous cilia. *Exp. al.* 11–15 mm. *Hindwings* pale bluish grey; cilia pale greyish ochreous. *Abdomen* fawn-grey; anal tuft stone-whitish. *Legs* stone-whitish.

Type ♂ (98962) Mus. Wlsm.

Hab. Tenerife: Santa Cruz, 8–14 II. 1907; Puerto Orotava, 23. IV, 10. V. 1907. Five specimens, but only one in good condition.

This species differs from *tristella* Rbl. in having the antennae annulate, and in the paler colour of its somewhat narrow forewings; moreover, although the spots are in the same position they are unaccompanied in this species by the yellowish, or ochreous, streaks which in *tristella* tend to connect and emphasise them. The palpi appear to be also a little more slender.

20. (2489·1) Metzneria dichroa, sp. n. (Plate LI. fig. 4.)

Antennae whitish ochreous, speckled with black above. *Palpi* whitish ochreous, more brownish ochreous on their outer sides. *Head* whitish ochreous. *Thorax* pale ochreous. *Forewings* whitish ochreous, longitudinally smeared with pale brownish ochreous below, above, and beyond the cell; an elongate black discal spot lies on the middle of the wing, followed by a smaller one at the end of the cell and preceded by two, even less conspicuous, groups of black scales on the fold and at the upper edge of the cell respectively; cilia whitish ochreous, with a slender brownish line running through their middle. *Exp. al.* 14–16 mm. *Hindwings* tawny grey; cilia pale brownish ochreous. *Abdomen* shining, pale greyish. *Legs* whitish ochreous.

Type ♂ (98304) Mus. Wlsm.

Hab. Tenerife: Villa Orotava, ⊕ in seed-heads of *Carlina salicifolia*, 25. IV – 7. VII, excl. 3. VI – 18. VII. 1907. Four specimens.

Larva white, without markings. Head olivaceous blackish, rather broadly edged with white on either side of the suture; pronotal plate indistinct, pale olivaceous. Long. 6 mm. *Type* ⊕ (98308: 7. VII.) Mus. Wlsm.

Bred from larvae, collected April 25th, feeding in old seed-heads of *Carlina salicifolia* Cav. in barrancos above Villa Orotova. Allied to *castiliella* Mschl.

21. (2490·1) Metzneria monochroa, sp. n. (Plate LI. fig. 5.)

Antennae pale ochreous. *Palpi* ochreous; brownish ochreous on their outer sides. *Head* and *Thorax* pale ochreous, slightly

smeared with pale brownish ochreous. *Forewings* whitish ochreous, suffused with very pale brownish ochreous, leaving the neuration faintly indicated by slender lines of the paler ground-colour, scarcely noticeable, except towards the apex; a slight suffusion of fawn-brown from the base of the costa reaches to about one-third, with a group of scales, indicating a spot, below the costa near its termination; a plical spot is placed below and a little beyond this, and there is also a similar fawn-brown spot, rather more conspicuous, at the end of the cell; cilia pale ochreous, with a very faint dividing shade-line. *Exp. al.* 23 mm. *Hindwings* tawny grey; cilia very pale brownish ochreous. *Abdomen* grey. *Legs* pale ochreous; tarsi unspotted.

Type ♂ (98309); ♀ (98310) Mus. Wlsm.

Hab. Tenerife: La Laguna, 11. V. 1907. Two specimens.

The ♂ in fine condition, the ♀ not quite so good; found below the large leaves of wild Artichoke (*Cynara cardunculus*), sheltering on the ground from a high wind. It is near *torridella* Mn., but much paler and quite distinct.

11. (321) SITOTROGA Hnm.

22. (2902) Sitotroga cerealella Oliv

Alucita cerealella Oliv. Enc. Méth. IV. (Ins. I.). 121 no. 15 (1789)[1]. *Sitotroga cerealella* Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 544 no. 32[2]; Rbl. Ann. KK. Hofmus. IX. 18, 89 no. 172 (1894)[3]: XXI. 44 no. 215 (1906)[4]: Stgr-Rbl. Cat. Lp. Pal. II. 157 no. 2902 (1901)[5]; Busck Bull. US. Nat. Mus. **52**. 496 no. 5552 (1902)[6]; Meyr. Pr. Lin. Soc. NSW. XXIX. 286 no. 50 (1904)[7]: Jr. Bomb. NH. Soc. XVI. 591 (1905)[8].

Hab. EUROPE[1-4]. ASIA—Ceylon[8]—Japan (*Pryer*: Mus. Wlsm.). AUSTRALIA[7]. N. AMERICA[6]. **Madeiras**[2]—Madeira[2]: Funchal (*Wollaston*)[2]. **Canaries**[2-5]—Tenerife[3-4]: IV. 1884 (*Leech*); Santa Cruz, 31. I. 1907 (*Wlsm.*); Puerto Orotava, 24. III. 1902 (*Eaton*); "on board SS. 'Gando'," 15. VI. 1907 (*Wlsm.*).

Taken at Santa Cruz, and on board ship when coming home.

12. (320·1) PRAGMATODES, gn. n.

(πραγματώδης = troublesome.)

Type *Pragmatodes fruticosella* Wlsm.

Antennae $\frac{4}{5}$, slightly serrate, somewhat thickened in ♂; basal joint without pecten. *Maxillary Palpi* very short, connivent. *Labial Palpi* recurved, moderate, median joint smoothly scaled; terminal joint shorter than median. *Haustellum* moderate. *Head* and *Thorax* smooth. *Forewings* elongate, gradually tapering to apex: *neuration* 12 veins; 7 and 8 stalked, to costa, 6 out of 7; rest separate, 1 furcate at base. *Hindwings* (−1), costa and dorsum almost parallel, apex strongly produced, termen oblique;

cilia 3, costal cilia somewhat bristly towards base: *neuration* 8 veins; 2 to 5 remote; 6 and 7 stalked, 6 weak. *Abdomen* moderate. *Legs*, hind tibiæ clothed with loose hairs.

I am unable to refer this somewhat obscure species to any described genus. In the combined characters 3 and 4 remote, 6 and 7 stalked in the hindwings; and 6 out of 7, beyond its furcation with 8, in the forewings, this agrees with *Sitotroga* Hnm., which however differs in having a pecten on the basal joint of the antennae. *Schistophila* Chrét. and *Glauce* Chmb. differ in having broader hindwings, with 3 somewhat approximated to 4, and the latter has long, flattened, broad, black subcostal bristles. *Ptocheuusa* Hnm. has 3 and 4 of the hindwings connate, and 3 and 4 of the forewings coincident. The group of *Aproaerema* Drnt., having 6 and 7 of the hindwings stalked, differs in having 3 and 4 connate; *Apodia* Hnm. agrees with *Pragmatodes* in the neuration of the forewings, but like other allies of *Aristotelia* Hb., with 3 and 4 of the hindwings remote, differs in having 6 and 7 separate, not stalked.

23. (2901·1) Pragmatodes fruticosella, sp. n.
(Plate LI. fig. 10.)

Poecilia (*Stenolechia*) *sp.* Rbl. Ann. KK. Hofmus. XI. 128, 146 no. 192 (1896)[1]. *Stenolechia* (*Poecilia*) *sp.* Rbl. Ann. KK. Hofmus. XXI. 44 no. 214 (1906)[2].

Antennae dirty whitish, obscurely annulate with fuscous. *Palpi* dirty whitish, dusted with fuscous, a black band before the apex on the median and terminal joints. *Head* and *Thorax* whitish, speckled with fuscous. *Forewings* dirty stone-whitish, dusted with fuscous; a basal patch, with convex outer margin, reaches to nearly one-fifth from the base and is thickly bestrewn with fuscous, the space beyond it forming a narrow fascia of the pale ground-colour, followed by a transverse blackish band, also irregularly convex, but ill-defined on its outer side; this again is followed along the dorsum and costa by somewhat profuse blackish dusting, a small dark discal spot lying in the middle of the wing; beyond the middle an inverted and rather angulated fascia of the pale ground-colour is ill-defined and followed by profuse blackish speckling, reaching to the apex and termen; cilia pale brownish grey, with a shade-line before their outer ends. *Exp. al.* 6·5–7·5 mm. *Hindwings* deeply sinuate, but not squarely excised below the apex; grey; cilia pale brownish grey. *Abdomen* greyish. *Legs* pale brownish grey, with fuscous bands on tibiae and tarsi.

Type ♀ (98969); ♂ (98970) Mus. Wlsm.

Hab. Tenerife: Santa Cruz, 31. I – 21. II, 29. V. 1907, ⊕ *Rubia fruticosa*, 13. II, excl. 19–20. III. 1907; Guimar, 28. II – 4. III. 1907. Ten specimens.

Bred in March from larvae found mining the leaves of *Rubia fruticosa* in February. The moth was also taken on the wing from January to March, and in May, at Santa Cruz and Guimar.

I feel very little doubt that the *Poecilia* (*Stenolechia*) *sp.*, which Rebel described from a worn ♀, taken by von Hedemann, in a barranco near Santa Cruz among *Tamarix*, 5. V. 1895, was the species now described as *fruticosella*, the larvae of which, although difficult to rear, are very common on *Rubia* in all the barrancos west of the town.

13. (320) APODIA Hnm.

24. (2900·4) Apodia guimarensis, sp. n. (Plate LI. fig. 6.)

Antennae cinereous. *Palpi* whitish cinereous. *Head* and *Thorax* whitish cinereous, the latter with a pale fawn-brown patch above. *Forewings* pale fawn-brown, with whitish cinereous lines and streaks, placed longitudinally and obliquely, but not transversely; one along the costa from base to apex, one along the cell from the base, branching to the costa beyond the middle, and again before the apex; another along the upper edge of the fold as far as the middle of the wing, nearly touching the outer end of an oblique dorsal patch arising before the middle, a similar patch arising before the tornus and angulated outward toward the apex; cilia whitish cinereous, dusted with fawn-brown scales on their basal half. *Exp. al.* 7·5–9 mm. *Hindwings* pale grey; cilia pale brownish cinereous. *Abdomen* brownish grey. *Legs* pale cinereous.

Type ♂ (98979) Mus. Wlsm.

Hab. Tenerife: Guimar, 13–28. III. 1907 (*Wlsm.*), 20. III. 1904 (*Eaton*). Four specimens.

14. (310) ARISTOTELIA Hb.

25. (2797·1) Aristotelia ancillula, sp. n.

Antennae pale fawn, broadly barred with dark fuscous above, almost obliterating the paler colour, except a noticeable spot at the outer end of the basal joint. *Palpi* pale cinereous; the median joint coarsely clothed beneath, speckled externally with fuscous; terminal joint much sprinkled with fuscous externally. *Head* rosy fawn, shaded with fuscous. *Thorax* rosy fawn, a strong dark fuscous shade anteriorly between the tegulae. *Forewings* rosy fawn, thickly sprinkled with fuscous, and with some dark fuscous, almost black, spots—one on the costa near the base, another, larger, on the dorsum below it, and a smaller one between them—these more or less confluent; opposite the middle spot is a larger one at about one-sixth, its lower edge resting on the fold; again, a little before the middle, is a similar spot on the disc, more or less confluent with a smaller one slightly preceding it on the fold, and these again are followed by a smaller and less conspicuous spot at the end of the cell; cilia rosy fawn, sprinkled with fuscous along their base. *Exp. al.* 13 mm. *Hindwings* (1); shining, somewhat iridescent, pale bluish grey; cilia fawn-

brownish. *Abdomen* greyish. *Legs* pale fawn-ochreous, somewhat speckled with pale fuscous.

Type ♀ (98982) Mus. Wlsm.

Hab. TENERIFE: Guimar, 25. III. 1907. Unique.

Agreeing precisely in the form of the hindwing with *servella* Z., but differing from this, and so far as I am aware from all other species of the genus, in the form and distribution of the more or less distinct spots.

26. (2811·1) ARISTOTELIA CACOMICRA, sp. n.

Antennae brownish grey. *Palpi* with the median joint slightly ruffled beneath; pale cinereous, dusted with brownish grey, with a fuscous band around the middle of the terminal point. *Head* and *Thorax* brownish grey. *Forewings* brownish grey, with a slight sprinkling of pale cinereous scales, some of which about the apex are tipped with brownish fuscous; three brownish fuscous spots are indistinctly indicated, one on the middle of the fold, one before the outer end of the fold, and one above and between these, on the cell, forming with them an almost equilateral triangle; cilia brownish cinereous. *Exp. al.* 7–8 mm. *Hindwings* iridescent, dark bluish grey; cilia brownish cinereous. *Abdomen* greyish fuscous. *Legs* brownish cinereous, the tarsi spotted whitish at the joints.

Type ♂ (98983) Mus. Wlsm.

Hab. TENERIFE: Santa Cruz, 26. I – 21. II. 1907, 29. IV. 1907; Puerto Orotava, 14. V. 1907. Seven specimens.

Near *rumicetella* Hfm., but without any indication of pale opposite spots before the apex; also differing noticeably in the absence of the shade-line which runs through the cilia in that species, and gives a rounded appearance to the otherwise almost evenly pointed wing.

15. (319) CHRYSOPORA Clms.

27. (2894·1) CHRYSOPORA BOSEAE, sp. n. (Plate LI. fig. 7.)

Antennae golden yellow, annulate with black. *Palpi* black, medial and terminal joints tipped with yellow. *Head* shining, brassy yellowish. *Thorax* black, with a few yellow scales. *Forewings* black; a bright golden fascia, at one-fourth from the base, descends obliquely inward from costa to dorsum, and is followed on the middle of the dorsum by two yellow spots, the first preceded by some raised black scales and having at its upper edge a tinge of coppery chestnut which is repeated in a strong spot at the end of the cell, above and beyond which is a triangular pale yellow spot on the costa; cilia pale brownish ochreous, thickly sprinkled, except on their outer ends, with black. *Exp. al.* 7–8 mm. *Hindwings* deeply excised below the apex; grey; cilia brownish grey, a slender pale cinereous line marking their base. *Abdomen*

blackish. *Legs* black, with pale ochreous spurs; hind tarsi with about five pale ochreous annulations.

Type ♂ (98991); ♀ (98992) Mus. Wlsm.

Hab. Tenerife: Puerto Orotava, 27. IV – 8. V. 1907, ⊕ mining leaves of *Bosea yervamora*, 21. IV, excl. 11–29. V. 1907. Thirty specimens.

The larva makes blotch-like mines in the leaves of *Bosea yervamora*, an indigenous shrub (which also occurs in the West Indies), on which it is by no means uncommon at Orotava; probably to be found elsewhere, as I believe I recognised the old mines between La Laguna and Tegeste.

16. (311) APROAEREMA Drnt.

=**Anacampsis* Stgr-Rbl. (nec Crt.).

28. (2838) Aproaerema psoralella Mill.

n. syn.=**albipalpella* (p.) Wlsm. (nec HS.); =*infestella* Rbl.; =**anthyllidella* (p.) Stgr-Rbl.

Gelechia psoralella Mill. Ic. Chen-Lp. II. 83–6. Pl. **61**: 1–6 (1865)[1]: III. 460 (1874)[2]. *Anacampsis psoralella* Stgr-Wk. Cat. Lp. Eur. 299 no. 2079 (1871)[3]; Mill. Cat. Lp. Alp-Mar. 335 (1875)[4]; Hrtm. MT. Münch. Ent. Ver. IV. 24 no. 2079 (1880)[5]. *Anacampsis *albipalpella* (p.) Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 544 no. 33 (1894)[6] [*excl.* 'Porto Santo, *Stn.*']. *Anacampsis infestella* Rbl. Ann. KK. Hofmus. XI. 128, 146 no. 195 (1896)[7]: XXI. 44 no. 212 (1906)[8]: Stgr-Rbl. Cat. Lp. Pal. II. 154 no. 2838 (1901)[9]. *Anacampsis *anthyllidella* (p.) Stgr-Rbl. Cat. Lp. Pal. II. 153 no. 2835 (1901)[10] [*excl.* "Mad."].

Hab. S. France: Amélie-les-bains; Cannes; Fréjus. ⊕ *Psoralea bituminosa*, X–IV, excl. V–VIII. **Madeiras**[6]—Madeira[6]: (*Wollaston*)[6]. **Canaries**[7]—Tenerife[7]: Guimar, 14. III. 1907, ⊕ *Psoralea bituminosa*, 3–9. IV, excl. 6. IV – 6 V. 1907 (*Wlsm.*); Puerto Orotava, 14–30. IV. 1895 (*Hedemann*)[7]; 26. IV – 14. V. 1907 (*Wlsm.*); Bajomar, 25. V. 1907 (*Wlsm.*).

Stainton [Ann-Mag. NH. (3 s.). III. 213] recorded **anthyllidella* Hb. from Porto Santo (Madeiras), and described *elachistella*, sp. n., from Northern Deserta (Madeiras). In 1894 (l. c. **6**) I referred Stainton's supposed **anthyllidella* to **albipalpella* HS., and recorded as the same species a single specimen (13617) from Madeira. Rebel (l. c. **7**) suggests the possibility that the species recorded by me as **albipalpella* HS. (=**anthyllidella* Stn.) might be the species which he proceeds to describe as *infestella* Rbl. I think this extremely probable, so far as the specimen from Madeira (13617) is concerned, for I have now before me more reliable exponents of *albipalpella* HS., and this Madeiran specimen does not completely agree with them; but it does agree with *psoralella* Mill., which Rebel (l. c. **10**) sinks as a synonym of the true *anthyllidella* Hb. As we are all seeking for the truth, and as

one good turn deserves another, may I, in thanking Prof. Rebel for the hint, suggest that his *infestella* is *psoralella* Mill. ? In support of this theory, without seeing Rebel's type, I can only say that *psoralella* Mill. is very common on *Psoralea bituminosa* in Tenerife, and the larvae from which I reared it there are the same as those pointed out to me by Millière himself at Cannes many years ago. Rebel's specimens of *infestella* were taken at Orotava 14–30. IV. 1895; I have specimens of *psoralella* labelled Orotava, 26. IV – 14. V. 1907.

In any case I must admit that the Madeira specimen (13617) is *psoralella* Mill., while Stainton's specimen from Porto Santo, recorded as **anthyllidella* (no. XXVIII) has a white face and white palpi, and is a finer specimen of *elachistella* Stn. than is the unset type (no. XXIX, ♂) from Northern Deserta.

28 a. (2846) Aproaerema elachistella Stn.

=**anthyllidella* Stn. (nec Hb.); =**albipalpella* (p.) Wlsm. (nec HS.).
Gelechia **anthyllidella* Stn. Ann-Mag. NH. (3 s.). III. 213 no. 19 (1859)[1]. *Gelechia elachistella* Stn. Ann-Mag. NH. (3 s.). III. 213 no. 20 (1859)[2]; Wkr. Cat. Lp. BM. XXIX. 628 no. 307 (1864)[3]. *Anacampsis* **albipalpella* (p.) Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 544 no. 33 (1894)[4]. *Anacampsis elachistella* Wlsm. Tr. Ent. Soc. Lond. 1894. 537, 544 no. 34 (1894)[5]; Stgr-Rbl. Cat. Lp. Pal. II. 154 no. 2846 (1901)[6].

Hab. Madeiras[2–6]—Northern Deserta: (*Wollaston*)[2, 3, 5].—Porto Santo: (*Wollaston*)[1]. Canaries—Gran Canaria: Las Palmas, 15. VI. 1907 (*Wlsm.*).

Stainton [Ann-Mag. NH. (3 s.). III. 213] recorded **anthyllidella* Hb. from Porto Santo, and described *elachistella*, sp. n., from Northern Deserta. In 1894 (l. c. 4) I referred Stainton's supposed **anthyllidella* to **albipalpella* HS., and recorded as the same species a single specimen (13617) from Madeira. Having now before me more reliable exponents of *albipunctella* HS., I find that this specimen from Madeira does not completely agree with them; but it does agree with *psoralella* Mill., which I have bred from *Psoralea bituminosa* at Cannes and in Tenerife. I have again examined Stainton's specimens and find that his **anthyllidella* from Porto Santo (no. XXVIII) has white palpi and white face, and is a finer specimen of *elachistella* Stn. than is the unset type (no. XXIX, ♂) from Northern Deserta. I took two specimens of this species at Las Palmas on June 15th. The locality "*Mad.*" (Stgr-Rbl. Cat. Lp. Pal. II. 153 no. 2835) pertains to *elachistella* Stn. (=**anthyllidella* Stn.)—the true *anthyllidella* Hb. has not yet been recognised as occurring in the Madeiras or Canaries.

29. (2847·01) Aproaerema genistae, sp. n. (Plate LI. fig. 8.)

Antennae black, with white annulations. *Palpi* white, with a slender black line along the under side of the acute terminal joint. *Head* white. *Thorax* brownish olivaceous. *Forewings* pale brownish olivaceous at the base, blending to blackish about the middle, and on the dorsum nearly to the base; beyond the middle is a straight, well-defined, oblique white fascia, of even width, pointing slightly outward from dorsum to costa; beyond it the terminal portion of the wing is profusely sprinkled with some brownish, many blackish, and a few elongate shining steely grey scales, the latter prevailing around the margin and at the base of the tawny greyish cilia. *Exp. al.* 8 mm. *Hindwings* leaden grey; cilia tawny grey. *Abdomen* leaden grey. *Legs* white, with broad tawny fuscous bands around the hind tibiae.

Type ♀ (98993); ♂ (98994) Mus. Wlsm.

Hab. Tenerife: La Laguna, ⊕ in shoots of *Genista canariensis*, 18. V, excl. 21. V – 9. VI. 1907. Thirty-three specimens.

Closely allied to *captivella* HS. and *acanthyllidis* Wlsm. [Ent. Mo. Mag. XLI. 40 (1905)], differing from the former in the white fascia being more outwardly oblique from dorsum to costa, and from the latter in the form of this fascia, which is consistently of even width throughout, throwing no projection toward the termen on its outer side; it is also slightly larger and has darker hindwings.

30. (2847·2) Aproaerema thaumalea Wlsm. (Plate LI. fig. 9.)

Aproaerema thaumalea Wlsm. Ent. Mo. Mag. XLI. 41 no. 2847·2 (1905)[1].

Hab. Algeria[1]: Hammam-es-Salahin, ⊕ *Astragalus gombo*, III–V, excl. IV–VI.[1] **Canaries**—Tenerife: Guimar, ⊕ *Lotus sessilifolius*, 6. III, 16–27. IV, excl. 10–29. IV, 20. V. 1907.

Thirteen specimens, bred from larvae forming sand-galleries beneath the trailing shoots of *Lotus sessilifolius*, on the coast near Puerto Guimar, are not in any way distinguishable from my Algerian specimens bred from *Astragalus gombo*. The food-plants are not very nearly allied, but they both grow on hot sandy soil, and the habits of the larvae are almost similar, but the larvae themselves, or at least the specimens which I preserved, believing them to belong to this species, are totally different, so much so that I am led to doubt whether the Algerian specimen (97110) does not rightly belong to some other species feeding on the same plant. About the Tenerife larva there can be no mistake: it is a curious, long, attenuated larva, with the thoracic somites slightly swelled; the head pale yellow-brown, pronota' plate broad, but very faintly indicated; abdominal claspers short almost rudimentary. It is creamy white, with a slender reddish line on either side of the dorsum, running from the mesothorax to the anal extremity. *Long.* 13 mm. ⊕ (98996) Mus. Wlsm. It descends into the sand in a silken tube, coming up to feed on the leaves of the plant, and again retiring below ground. So far as I observed, the Algerian larva did not descend below the surface of the soil, the sand-tubes being among the trailing branches.

The specimen figured (98995, ♀) is from Guimar.

31. (2847·1) Aproaerema mercedella, sp. n. (Plate LI. fig. 11.)

Antennae yellow, annulate with black. *Palpi* pale yellowish, the median joint black nearly to its apex, except a narrow line of white along its upper side; terminal joint with a broad blackish shade before its apex. *Head* yellowish white. *Thorax* pale yellowish, with a diffused greyish fuscous median shade above. *Forewings* blackish, with pale yellowish patches and lines occupying almost as much space as the ground-colour, which is accom-

panied, around their edges, by some rust-brown suffusion, especially noticeable on the apical portion of the wing; at the extreme base a short yellow streak, which follows the fold, is quickly diverted and dilated to the dorsum; a large pale yellow patch, commencing above its outer extremity on the costa, is attenuated obliquely outward along the cell, ending in a pale ocellate spot at the end of the cell, containing an elongate black dot, a little beyond which an outwardly angulate, narrow, pale yellow fascia crosses the wing; this is produced at either extremity along the margins and around the apex, forming thus a narrow yellowish band enclosing a space of the shape of a blunt arrow-head; cilia pale yellowish, with two parallel black lines running through them and emphasising the obtusely rounded appearance of the apex; the pale costal patch throws a slight excrescence across the fold before the middle, but does not reach the dorsum. *Exp. al.* 10 mm. *Hindwings* leaden grey; cilia brownish grey. *Abdomen* grey; anal tuft ochreous. *Legs* ochreous, the tarsi banded with leaden grey.

Type ♂ (14107) Mus. Wlsm.

Hab. TENERIFE: Las Mercedes, ⊕ on dead moss-grown bark of *Laurocerasus lusitanica*, 7. III, excl. 24. VIII. 1904 (*Eaton*). Unique.

Among described species this is most nearly allied to *nigratomella* Clms. and *concinusella* Chmb., from both of which it differs in the presence of dark dorsal markings; the pattern is found also in other allied American genera. A single specimen was bred by the Rev. A. E. Eaton from a larva found on dead moss-grown bark of *Laurocerasus lusitanica*, 7. III., near the Casa del Agua, in the forest of Las Mercedes, 2050 ft. (near La Laguna), on August 24th, 1904.

17. (303·01) TELPHUSA Chmb.

= *XENOLECHIA* Meyr.

TELPHUSA Chmb. Can. Ent. IV. 132 (1872); Busck Bull. US. Nat. Mus. **52**. 496–7 (1902): Busck Pr. US. Nat. Mus. XXV. 773, 783–9. Pl. **28**·5 (1903).
XENOLECHIA Meyr. HB. Br. Lp. 583 (1895).

32. (2743) TELPHUSA CISTI Stn.

Gelechia cisti Stn. Tin. S-Eur. 211–12 (1869)[1]. *Teleia cisti* Mill. Cat. Lp. Alp-Mar. 331 (1875)[2]; Hrtm. MT. Münch. Ent. Ver. IV. 20 no. 1983 (1880)[3]; Wlsm. Ent. Mo. Mag. XXVII. 145 (1891)[4]; Rbl. Verh. ZB. Ges. Wien XLI. (**1891**). 630 no. 45 (1891)[5]. *Gelechia* (*Teleia*) *cisti* Stgr-Rbl. Cat. Lp. Pal. II. 150 no. 2743 (1901)[6].

Hab. S. EUROPE[1–6]—S. FRANCE[1–6]: ⊕ *Cistus salviaefolius*[1, 3], *C. albidus*[1], III–VI[3], excl. IV–VIII.[3]—DALMATIA[3–6]—CORSICA: Corté, ⊕ *Cistus salviaefolius*, excl. 18–27. VII. 1898 (*Wlsm.*). N. AFRICA—TUNIS: Aine-Draham, 21. VII. 1896 (*Eaton*)—

Algeria: Port National, Algiers, 1. XI. 1892 (*Eaton*); Azagga, 2. IX. 1893 (*Eaton*); Lac Houbeira, 3. VII. 1896 (*Eaton*). **Canaries**—Tenerife: Guimar, ⊕ *Cistus monspeliensis*, 26. II. excl. 4. V – 3. VI. 1907 (*Wlsm.*).

33. (2749·1) Telphusa schizogynae, sp. n. (Plate LI. fig. 12.)

Antennae black, dotted with white throughout. *Palpi*, terminal joint longer than the smoothly and compactly clothed median; pinkish white, with two slender black lines running throughout the length of the terminal, and a black patch on the outer side of the median joint at its base. *Head* iridescent, steely whitish. *Thorax* black, shaded with brownish ochreous at the sides. *Forewings* steely whitish, suffused with bluish grey to two-thirds from the base, and again narrowly around the apex; at the extreme base is a short brownish ochreous patch, externally bounded by a black dorsal streak, and separated from the costa by black; there are two black discal spots, one before the middle, one at the end of the cell—the first of these preceded by a similar spot on the fold below it; the outer edge of the blue-grey shading is straight, except for the outer discal spot projecting through it; apex and cilia white, the latter with a faint median shade. *Exp. al.* 14–16 mm. *Hindwings* abruptly and deeply excised below apex, veins 3 and 4 separate, 5 approximate to 4, discoidal weak, 6 and 7 stalked; tawny grey; cilia paler, with a lighter line along their base. *Abdomen* and *Legs* tawny grey, the tarsi pale-spotted.

Type ♂ (98997); ♀ (98998) Mus. Wlsm.

Hab. Tenerife: Puerto Orotava, ⊕ in galls on stems of *Schizogyne sericea*, 21. IV – 16. V, excl. 25. IV, 10–30. V, 3–30. VI, 2–10. VII, 19. VIII. 1907. Fourteen specimens.

A distinct species, perhaps most resembling *fugitivella* Z. + *lyellella* Crt., but larger. The median joint of the palpi is too smooth to be described as "thickened with rough scales beneath," but the clothing of this joint is variable in the genus *Telphusa*. Bred from larvae feeding in a swelling on the stems of *Schizogyne sericea*: these galls are abundant on the plant, but their numbers are likely to be somewhat misleading as to the abundance of the species, for not only are they for the most part empty galls belonging to many previous seasons, but a very large proportion of the living larvae are affected by parasites—indeed I have been able to rear only fourteen specimens from at least 150 galls collected.

34. (2749·2) Telphusa canariensis, sp. n. (Plate LI. fig. 15.)

Antennae mealy white, annulate with fuscous. *Palpi* mealy white, with two blackish annulations on the terminal joint, and two oblique blackish bars on the outer side of the median. *Head* and *Thorax* mealy white, the latter slightly sprinkled with fuscous. *Forewings* mealy white, sprinkled, and almost suffused locally,

with greyish fuscous; an oblique costal spot, at one-sixth from the base, points downward to a similar one on the fold a little beyond it, which again points to another on the dorsum, each containing some raised scales, there is also a small spot at the extreme base of the fold; another costal spot occurs before the middle and is somewhat diffused outward and downward toward a small dark discal spot, beyond which, transversely placed, are two small spots at the end of the cell, these and the preceding being partially surrounded by pale ochreous scaling; there is a faint indication of a transverse shade beyond the end of the cell, throwing an acute angle outward towards the apex from below its middle, the space beyond this shade being of the paler ground-colour, but succeeded by more shady suffusion around the apex and termen; cilia mealy white, dusted with greyish fuscous. *Exp. al.* 16 mm. *Hindwings* pale grey; cilia pale brownish grey. *Abdomen* brownish ochreous. *Legs* whitish ochreous.

Type ♀ (98999) Mus. Wlsm.

Hab. **Canaries**—Tenerife: Guimar, 12. IV. 1907. Unique. Taken at light.

18. (303) GELECHIA Hb.

35. (2533) Gelechia domestica Hw.

35+a. (2533+a) domestica Hw.+ domestica Hw.

Recurvaria domestica Hw. Lp. Br. 551 no. 18 (1828)[1]. *Bryotropha domestica* Stgr-Rbl. Cat. Lp. Pal. II. 142 no. 2533 (1901)[2].

Hab. EUROPE—England—Germany—Austria—Italy—Spain. WC. ASIA.

35+b. (2533+b) domestica Hw.+ salmonis, var. n.

Bryotropha domestica Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 544 no. 31 (1894)[1]; Rbl. Ann. KK. Hofmus. XXI. 38, 44 no. 208 (1906)[2].

Hab. Algeria: Hammam-es-Salahin. 18. IV. 1903 (*Wlsm.*); Constantine, 20. V. 1895 (*Eaton*); El-Kantara, 25. V. 1903 (*Wlsm.*). **Madeiras**[1]—Madeira: (*Wollaston*)[1]. **Canaries**[2]—Tenerife: (*White*)[2]; Guimar, 4. IV. 1907 (*Wlsm.*). Five specimens.

Type ♂ (99000) *Guimar*, Mus. Wlsm.

I have already recorded this species from Madeira, and Prof. Rebel mentions a Tenerife specimen which I have seen in Mr. White's collection. I took a fine ♂ at Guimar on April 4th. These specimens have a salmony pink hue in the ground-colour of the forewings, which is wanting in European specimens. I have three specimens, taken in Algeria, which resemble the Canary form, and to which I had given the MS. name "*salmonis*": as all the markings correspond with those of English *domestica* Hw., it is perhaps sufficient to indicate these and the Canary and Madeiran specimens under this varietal name, taking my Guimar ♂ (99000) as the Type of this variety.

36. (2584) Gelechia plutelliformis Stgr.

= *olbiaella* Mill.; = *siewersiellus* Chr. (nec *sieversi* Stgr., sp. alt., 2584·01).

Gelechia plutelliformis Stgr. Stett. Ent. Ztg. XX. 239 no. 79 (1859)[1]; Stn. Tin. S-Eur. 141, 147 no. 18, 360 (1869)[2]. *Alucita olbiaella* Mill. Ic. Chen-Lp. I. 193–6. Pl. 1·1–6 (1861)[3]; Stn. Tin. S-Eur. 167, 182–5 no. 10 (1869)[4]. *Hypsolophus siewersiellus* Chr. Stett. Ent. Ztg. XXVIII. 239–40 (1867)[5]. *Gelechia plutelliformis* Stgr. Berl. Ent. Zts. XIV. 309–10 no. 91 (1870)[6]: Stgr-Wk. Cat. Lp. Eur. 290 no. 1832 (1871)[7]; Mill. Cat. Lp. Alp-Mar. 326 (1875)[8]; Hrtm. MT. Münch. Ent. Ver. IV. 16 no. 1832 (1880)[9]; Curo Cat. Lp. Ital. VI. 38 (1882)[10]; Rouast Cat. Chen. Eur. 155 (1883)[11]; Chr. Mém. Lp. Rmhf. II. 158 no. 316 (1885)[12]; Rbl. Ann. K.K. Hofmus. VII. 274, 283 no. 56 (1892)[13]: XIII. 377, 381 no. 203 (1898)[14]: XXI. 44 no. 209 (1906)[15]: Stgr-Rbl. Cat. Lp. Pal. II. 144 no. 2584 (1901)[16].

Hab. S. Spain [1-2, 6-7, 10, 13, 16].—S. France [3-4, 7-8, 10, 13, 16].—SE. Russia: Sarepta [5, 7, 10, 16], 23. V. 1866, 1. VII. 1866, 11. VIII. 870 (*Christoph*). Pontus [13, 16].—Syria [16].—Tura [12, 13, 16]: ⊕ *Tamarix* [1-5, 8-11]: *gallica* [3-4, 8-11]: *laxa* [5, 9]: *pallasii* [5, 9], III–IV [9]; VI–VIII [5, 9]; IX [5]; autumn [3, 4, 11], excl. V [9]–VI [1, 2, 5]; VII [3-4, 5, 8]; VIII [3-4, 8-9]–IX [9]. **Canaries** [13-16]—Tenerife [13-15]: Guimar, 15. I. 1898 (*Hintz*)[14]; Santa Cruz, 17. I – 2. II. 1907, ⊕ *Tamarix gallica*, XII–I, excl. 20. II – 17. IV. 1907 (*Wlsm.*); Monte de Aguirre, 800 m., 21. VII. 1889 (*Simony*)[13].

Among a series of fifteen specimens, bred from *Tamarix gallica*, near Santa Cruz, one pale variety approaches somewhat closely in colour to the Algerian *sinuatella*, Wlsm. [Ent. Mo. Mag. XL. 223 (1904)], but the form of the markings is distinctly that of *plutelliformis*, which it resembles also in its smaller size.

The larva feeds on *Tamarix gallica*, in December and January, the moth flying in January, February, and March.

Larva, somewhat attenuate to either extremity, greenish yellow, with reddish patches on the anterior portion of each segment, and a few, sparsely distributed, bristly hairs; there is a single black dot on either side of each thoracic somite. Head pale green; no distinguishable pronotal plate; legs and claspers long, blackish.

In 1859 Staudinger described *Gelechia plutelliformis* (Stett. Ent. Ztg. XX. 239) from two ♀♀ bred from larvae taken at Chiclana, and in 1870 he described *Gelechia sieversi* Chr. in litt. (Berl. Ent. Zts. XIV. 309–10), pointing out the differences between the two species, and adopting Christoph's name, apparently overlooking Christoph's description of *Hypsolophus siewersiellus* (Stett. Ent. Ztg. XXVIII. 239–40). The two species are quite distinct and easily separated: in *plutelliformis* the dark streak reaches to the base, and is sinuate thus ∼, being clearly defined beneath by whitish ochreous, but above it fades away into the ground-colour of the wing; at the extremity of the dark sinuate line is a dark extension, sometimes separated from it. In *sieversi* the longitudinal dark marking may be best described as a cuneate streak commencing at half the wing-length and attenuate towards the base, which it does not reach; this streak is sharply edged with whitish above, and slightly beyond its outer extremity, in line with its upper

edge, is an elongate dark streak, also edged above with whitish; at the base is a black limbal streak which does not occur in *plutelliformis*. When describing *siewersiellus*, Christoph had before him (unwittingly) specimens of both *plutelliformis* and *sieversi*, both taken at Sarepta, and apparently both bred from *Tamarix*. His description of *siewersiellus* was obviously taken from *plutelliformis*, and Staudinger und Wocke (Cat. Lp. Eur. 290) give the synonymy correctly thus:

1831. *sieversi* Stgr.

1832. *plutelliformis* Stgr.; =*olbiaëlla* Mill.; =*siewersiellus* Chr.

Christoph's collection contains six specimens and a larva labelled "*sieversi* Stgr."; and four specimens labelled "*plutelliformis* Stgr." These are all from Sarepta, and are correctly determined, except that the third specimen of *plutelliformis* is a worn example of an allied species distinct from both. The name *siewersiellus* does not occur in the collection: the larva labelled "*sieversi*" appears to be distinct from, but closely allied to, that of *plutelliformis* (*siewersiellus*), and probably fed on *Tamarix laxa* or *pallasii* (*vide* Chr. l. c.).

Christoph sent Zeller two specimens, which constitute Zeller's series of "*plutelliformis* Stdg." The first, received from Christoph in 1860, is labelled by Zeller "*Gelechia plutelliformis* Stdg. E. Z. 59, 239": this determination is incorrect, it is *sieversi* Stgr. The second specimen is not specially labelled, not being regarded as distinct from the first; it is, however, truly *plutelliformis* Stgr. (=*siewersiellus* Chr.). When describing *sieversi*, Staudinger observes that, owing to its similarity to *plutelliformis*, he had at first thought it that species, but, recognising its distinctness, he retains for it the name given by Christoph in honour of the now unfortunately deceased entomologist Sievers. It is therefore presumable that Christoph sent Staudinger *sieversi* Stgr., labelled "*siewersiellus* Chr." On the other hand, Christoph sent Hofmann, in 1871, four specimens of "*siewersiella* Chr.", which are rightly determined by Hofmann as *plutelliformis* Stgr.

In Staudinger and Rebel's Catalog (II. 144) we find both species united thus:—

2584. *plutelliformis* Stgr.; = *olbiaëlla* Mill.; = *siewersiellus* Chr.; = *sieversi* Stgr. [ab.].

The confusion caused by both species occurring at Sarepta, and both species being distributed by Christoph as "*siewersiellus*," has doubtless suggested the erroneous idea that the verbal variants *Hypsolophus siewersiellus* Chr. and *Gelechia siewersi* Stgr. pertained to mere varieties of one species. Staudinger's two species are undoubtedly distinct, and we must revert to the synonymy of Staudinger and Wocke's Catalog, correcting that of Staudinger and Rebel thus:—

2584·01. Gelechia sieversi Stgr.

(nec *siewersiellus* Chr., = 2584. *plutelliformis* Stgr.)

Gelechia sieversi Stgr. Berl. Ent. Zts. XIV. 309–10 no. 91 (1870)[1]: Stgr-Wk. Cat Lp. Eur. 290 no. 1831 (1871)[2]; Hrtm. MT. Münch. Ent. Ver. IV. 16 no. 1831 (1880)[3] [* in syn. *plutelliformis* Stgr-Rbl. Cat. Lp. Pal. II. 144 no. 2584 (1901)[4]].

Hab. SE. Russia: Sarepta[1-4], 29. VI. 1859, 16. VI. 1866, 1. VII. 1866, 1 VIII., 18. VIII. 1866, 20. VIII. 1879 (*Christoph*), ⊕ *Tamarix*[1].

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37. (2611·2) Gelechia lunariella, sp. n. (Plate LI. fig. 13.)

Antennae shortly biciliate in ♂; blackish, spotted with rosy reddish above. *Palpi* moderately biserrate beneath; rosy whitish, speckled and ringed with black, the terminal joint having a black ring before its middle, and a broader band before its minutely pale apex; the intermediate space pale rosy. *Head* steely greyish, with rosy iridescent scale-tips. *Thorax* black, mixed with rosy reddish. *Forewings* cinereous, varying to rosy reddish; sprinkled and suffused with tawny grey and black scaling, the latter for the most part slightly raised, and exhibited, especially on the base of the dorsum, in an outwardly oblique, narrow, partially interrupted, transverse fascia at about one-sixth from the base; in a patch on the middle of the cell, another, toward the end of the cell, produced downward to the dorsum at

the outer end of the fold; above it a blackish costal patch, preceded by an elongate costal shade, the intermediate spaces bright rosy red; the terminal portion of the wing is much mottled with similar colouring, tending to indicate marginal spots, radiating through the tawny greyish cilia, which have two narrow shade-lines running through them before their ends. *Exp. al.* 15–17 mm. *Hindwings* tawny grey, with a rosy tinge; cilia pale brownish cinereous. *Abdomen* and *Legs* brownish cinereous, the latter spotted externally with tawny fuscous.

Type ♂ (99001); ♀ (99002) Mus. Wlsm.

Hab. Tenerife: San Andres, ⊕ *Rumex lunarius*, 23. I, excl. 27 II – 9. III. 1907; Guimar, ⊕ 12. IV, excl. 11–24. V. 1907; Puerto Orotava, ⊕ 24. IV, excl. 23. V. 1907. Thirteen specimens.

Bred from pale glaucous green larvae collected on *Rumex lunarius* in January and April; these larvae turned to rosy reddish before pupating (99003 Mus. Wlsm.).

I met with this species first at San Andres, near Santa Cruz, and subsequently observed it near Guimar, and again at Orotava. It contorts and attaches together the young terminal leaves of its food-plant, and probably occurs wherever this indigenous shrub is to be found on the island. It is closely allied to *nigrorosea* Wlsm., but is a darker and rather broader winged insect: it is also very near to the European *diffinis* Hw.

38. (2635) Gelechia epithymella Stgr.

Gelechia epithymella Stgr. Stett. Ent. Ztg. XX. 242 no. 89 (1859)[1]; Stn. Tin. S-Eur. 141, 150 no. 28, 332 (1869)[2]. *Lita epithymella* Mill. Ic. Chen-Lp. III. 392–4. Pl. **149**· 8–10 (1874)[3]: Cat. Lp. Alp-Mar. 329 (1875)[4]; Hrtm. MT. Münch. Ent. Ver. IV. 18 no. 1914 (1880)[5]. *Gelechia* (*Lita*) *epithymella* Stgr-Wk. Cat. Lp. Pal. II. 146 no. 2635 (1901)[6].

Hab. S. France[3–6]: Cannes[3, 4], Monaco[3], Mentone[4], ⊕*Solanum nigrum*, VIII–IX[3–5], excl. IX–XI[3–5]—S. Spain[1–2, 5–6]: Chiclana, 14. III[1–2]. **Canaries**—Tenerife: Puerto Orotava, ⊕*Hyoscyamus albus*, 10. V, excl. 6–16. VI. 1907 (*Wlsm.*).

After persistingly searching plants of *Hyoscyamus albus* in the expectation of finding *Gelechia hyoscyamella* Mill., I at last found larvae mining the leaves of two or three plants only, among several, in a lane east of Puerto Orotava. To my surprise these produced rather dark varieties of *Gelechia epithymella* Stgr., which has been recorded as feeding on *Solanum nigrum* in the south of France, but which has not hitherto been observed in Tenerife.

39. (2636·1) Gelechia micradelpha Wlsm.

Gelechia micradelpha Wlsm. Ent. Mo. Mag. XXXVI. 217–8 no. 1916·3 (1900)[1]; Stgr-Rbl. Cat. Lp. Pal. II. 264 no. 2694[ter] (1901)[2].

Hab. S. FRANCE[1-2]: Perpignan, ⊕ *Lycium europaeum*, 22. V, excl. 7–9. VI. 1899 (*Wlsm.*)[1]. ALGERIA: Biskra, 13. II – 7. IV. 1903, ⊕ *Lycium europaeum*, 12. I, excl. 6. III. 1904 (*Wlsm.*): Hammam-es-Salahin, 22. III – 30. IV. 1904 (*Wlsm.*). **Canaries**—TENERIFE: Santa Cruz, 10. I. 1907 (*Wlsm.*); Puerto Orotava, 27. IV. 1904 (*Wlsm.*).

This obscure little species is common among *Lycium afrum*, west of Santa Cruz, and east of Orotava. It has not hitherto been known to occur in the Canaries, unless it be the same as the worn specimen, taken by von Hedemann at Orotava, 14. IV. 1895, recorded as *Lita sp.*, by Rebel, Ann. KK. Hofmus. XI. 127, 146 no. 191 (1896): XXI. 44 no. 211 (1906).

40. (2712·1) GELECHIA SCIURELLA, sp. n. (Plate LI. fig. 14.)

Antennae dark grey, with blackish annulations. *Palpi* hoary, much sprinkled and suffused with black and chestnut-brown, except on the inner side of the median joint, which appears slightly serrate beneath. *Head* and *Thorax* steely grey. *Forewings* whitish grey, mottled, suffused, and blotched with chestnut-brown and black; the former prevailing especially along the costal area, from the base to beyond the middle, and in a diffused patch a little beyond the upper angle of the cell; the latter especially in a roundish spot on the fold near the base, in a large reniform patch before the middle, its lower edge crossing the fold, and in an inverted, upwardly attenuate, oblique patch resting on the outer end of the fold; the apex and termen are also speckled with black; cilia smoky greyish, with some pale brown around the apex. *Exp. al.* 10–12 mm. *Hindwings* subiridescent, bluish grey; cilia tawny grey. *Abdomen* grey. *Legs* greyish fuscous, pale cinereous at the joints.

Type ♀ (14290) *Funchal* Mus. Wlsm.

Hab. **Madeiras**—MADEIRA: Funchal, 2600 ft., 8. III. 1902 (*Eaton*). **Canaries**—TENERIFE: Guimar, 27. II – 12. IV. 1907 (*Wlsm.*); Arafo, 13. IV. 1907 (*Wlsm.*). Seven specimens.

Most nearly allied to *provinciella* Stn., but smaller and more glossy; the darker shades are greyer, and the ground-colour is more cinereous, less ochreous. I have had the type in my collection for some years: the capture of six worn specimens in Tenerife has induced me to describe it.

19. (300) PLATYEDRA Meyr.

41. (2509) PLATYEDRA VILELLA Z.

Gelechia vilella Z. Isis **1847**. 846–7 no. 393[1]. *Platyedra vilella* Meyr. HB. Br. Lp. 605 (1895)[2]; Stgr-Rbl. Cat. Lp. Pal. II. 141 no. 2509 (1901)[3].

Hab. WC–C. and S. EUROPE—SPAIN: SEVILLA: Corrio del Rio, 10. XII. 1900; Alcalar, 12. XII. 1900 (*Wlsm.*): CADIZ: Jerez de la Frontera, 18. XII. 1900; Chiclana, 22–25. II. 1901

(*Wlsm.*): MALAGA: Malaga, 2. I. 1901 (*Wlsm.*). WC. ASIA. N. AFRICA—Morocco: Tangier, 13. IV. 1901 (*Wlsm.*) — Algeria: Biskra, 7. III. 1903 (*Wlsm.*). **Canaries**—Tenerife: Villa Orotava, 19. II. 1907 (*Wlsm.*); near Tacaronte, 29. IV. 1907 (*Wlsm.*).

Two specimens: one taken at Villa Orotava, the other between Villa Orotava and Tacaronte.

20. (300·1) PHTHORIMAEA Meyr.

Phthorimaea Meyr. Ent. Mo. Mag. XXXVIII. 103–4 (1902)[1]; Busck Bull. US. Nat. Mus. **52**. 502 (1902)[2]: Pr. US. Nat. Mus. XXV. 773, 821–3. Pl. **30**· 19 (1903)[3]; Meyr. Pr. Lin. Soc. NSW. XXIX. 259, 315–6 no. 20 (1904)[4].

"*Antennae* $\frac{4}{5}$, in ♂ simple, basal joint elongate, without pecten. *Labial Palpi* long, recurved, second joint expanded with rough projecting scales beneath, terminal joint as long as second, acute. *Forewings*: 2 and 3 parallel, 7 and 8 stalked, 7 to costa. *Hindwings* 1, trapezoidal, apex produced, acute, termen bisinuate, cilia $1\frac{3}{4}$; in ♂ with long pencil of hairs lying along costa from base beneath forewings; 3 and 4 connate, 5 somewhat approximated to 4, 6 and 7 remote, nearly parallel.

"A North American genus of several species, of which one has been artificially introduced with its food-plant into widely separated regions; it is a derivative of *Gnorimoschema* Busck. Imago with forewings elongate, pointed." (*Meyrick*, l. c. **4**.)

42. (2509·1) Phthorimaea operculella Z.

=§ *terrella* Wkr.; =*solanella* Bdv.; =*tabacella* Rgt.; =*sedata* Btl.; =**piscipellis* Hwrd. (nec Z.).

Gelechia terrella Wkr. Cat. Lp. BM. XXX. 1024 (1864)[1]. *Gelechia* (? *Bryotropha*) *operculella* Z. Verh. ZB. Ges. Wien XXIII: **1873**. Abh. 262–3. Pl. **3**· 17 (1873)[2]. *Bryotropha solanella* Bdv. J. B. Soc. Centr. Hort. (XI. 1874)[3]. *Gelechia tabacella* Rgt. Bull. Soc. Ent. Fr. XLVIII (4 s. IX: **1879**) pp. cxlvi–vii (1880)[4]. *Gelechia sedata* Btl. Cist. Ent. II. 560 no. 88 (1880)[5]. *Litha solanella* Alph. Mém. Lp. Rmhf. V. 231 no. 56 (1889)[6]; Holt White B. & M. Ten. 95 no. 20 (1894)[7]. *Lita solanella* Rbl. Ann. KK. Hofmus. VII. 274–5, 282 no. 57 (1892)[8]: IX. 18, 89 no. 171 (1894)[9]: XI. 127, 146 no. 190 (1896)[10]: XIII. 381 no. 204 (1899)[11]: XXI. 44 no. 210 (1906)[12]. *Gelechia* (*Lita*) *solanella* Stgr-Rbl. Cat. Lp. Pal. II. 146 no. 2636 (1901)[13]. *Phthorimaea operculella* Meyr. Ent. Mo. Mag. XXXVIII. 103–4 (1902)[14]; Busck Bull. US. Nat. Mus. **52**. 502 no. 5616 (1902)[15]: Pr. US. Nat. Mus. XXV. 821–2. Pl. **30**· 19 (1903)[16]; Meyr. Pr. Lin. Soc. NSW. XXIX. 316 no. 94 (1904)[17]; Wlsm. Fn. Hawaii. I. 483–5, 731, 745, 757, 758 no. 21. Pl. **13**· 27 (1907)[18].

Hab. WEST INDIES. UNITED STATES. HAWAIIA. TAHITI. AUSTRALIA. NEW ZEALAND. S. EUROPE—Spain. N. AFRICA—Algeria. ⊕ mining leaves, shoots, stems, tubers: *Lycopersicum esculentum*; *Nicotiana tabacum*; *Solanum carolinense, melongena, tuberosum*, I–XII, excl. I–XII. **Canaries** [6–13, 18]—Tenerife [6–12, 18]: IV. 1885 (*Leech*); Guimar, 2. III – 16. IV. 1907 (*Wlsm.*); La Laguna, 3–23. V. 1907 (*Wlsm.*); Puerto Orotava, IX (*Alpheraky*) [6–8].—Fuerteventura [8–12, 18]: Rio Palma, 20. X. 1890 (*Simony*) [5].

Not uncommon in March and April at Guimar, and at La Laguna in May; often, but not exclusively, near potato-fields.

[For Index to full list of references *vide* Wlsm. l. c. **18.**]

21. (306·01) TRICHOTAPHE Clms.

Trichotaphe Clms. Pr. Ac. Nat. Sc. Phil. XII. 166 (1860) [1]: Clms-Stn. Tin. N. Am. 121 (1872) [2]; Busck Bull. US. Nat. Mus. **52.** 505–7 (1902) [3]: Pr. US. Nat. XXV. 772, 906–16. Pl. **32**· 33 (1903) [4].

"*Antennae* serrate, often more or less ciliated. *Labial Palpi* long, recurved; second joint thickened with scales, appressed and smooth in front and laterally, smooth, or more or less long-haired above (on the inner side); terminal joint long, but shorter than second joint, slender, smooth, pointed. *Forewings* elongate, apex obtuse; 12 veins, 7 and 8 stalked, 2 and 3 stalked. *Hindwings* broader than forewings, slightly sinuate below apex, trapezoidal, anal angle rounded; 8 veins, 3 and 4 connate with a tendency to become short-stalked, 5 approximate to 4, 6 and 7 connate with a tendency to become short-stalked. Discal vein in several species with a tendency to become obsolete." (*Busck*, l. c. **3.**)

43. (2270·01) Trichotaphe lamprostoma Z.

=*zulu* Wlsm.

Gelechia lamprostoma Z. Isis. **1847.** 851–2 no. 400 [1]. *Gelechia zulu* Wlsm. Tr. Ent. Soc. Lond. **1881.** 261–2. Pl. **12**· 30 [2]. *Anacampsis lamprostoma* Stgr-Rbl. Cat. Lp. Pal. II. 154 no. 2848 (1901) [3]. *Aproaerema lamprostoma* Wlsm. Ent. Mo. Mag. XXXVII. 236 (1901) [4]. *Onebala lamprostoma* Wlsm. Ent. Mo. Mag. XL. 267–8 no. 2770·1 (1904) [5]. *Anacampsis* (*Onebala*) *lamprostoma* Rbl. Ann. KK. Hofmus. XXI. 38, 44 no. 213 (1906) [6].

Hab. SW. ASIA [3, 5]: VI [5]. S. EUROPE [1, 3, 5]—Sicily, V [1, 3, 5]—Spain, V [3–5]. AFRICA—Algeria: IV [5]—Gambia: XI [5].—Natal: VII; XII [4]. **Canaries**—Tenerife [6]: (*White*, 1905) [6]: Puerto Orotava, 10. V. 1907, ⊕ *Convolvulus althaeoides*, 10. V, excl. 15. VI. 1907 (*Wlsm.*).

I bred a single specimen from a larva found at Puerto Orotava; this did not emerge until June 5th, although I captured five

specimens on the same spot on May 10th, when I found the larva feeding on *Convolvulus althaeoides*: the food-plant of this species was hitherto unknown.

44. (2270·02) Trichotaphe convolvuli, sp. n.
(Plate LI. fig. 16.)

= *Ceratophora sp.* Rbl. Ann. KK. Hofmus. VII. 275, 283 no. 58 (1892)[1]. *Brachmia* (*Ceratophora*) *sp.* Rbl. Ann. KK. Hofmus. XXI. 44 no. 216 (1906)[2].

Antennae dark tawny fuscous. *Palpi* dull whitish ochreous, unspotted; the median joint clothed with closely appressed scales. *Head* whitish ochreous. *Thorax* dark tawny fuscous. *Forewings* dark tawny fuscous, with a small, narrow, elongate, pale ochreous costal spot at four-fifths from the base; on the cell, at one-third from the base, is an elongate blackish spot, followed by another at two-thirds—each rather obscurely annulate with chestnut-brown scales; a similar spot lies in the fold, straight below the first discal, and a row of minute ochreous spots precedes the dark tawny grey cilia. *Exp. al.* 13–15 mm. *Hindwings* brownish grey, with a slender pale ochreous line along the base of the otherwise unicolorous cilia. *Abdomen* fuscous. *Legs* dark tawny fuscous; the spurs and joints of the tarsi pale cinereous.

This species (which is obviously the same as *Ceratophora sp.* Rbl.) is closely allied to *juncidella* Clms., but differs in its darker face and palpi: the median joint of the palpi is more roughly scaled, and the pale costal spot is distinctly visible on the under side of the forewings.

Type ♀ (99004); ♂ (99005); ⊕ (99006) Mus. Wlsm.

Hab. **Canaries**—Tenerife: Santa Cruz, 19–22. I. 1907, ⊕ *Ipomoea quinquefolia*, 19. I, excl. 20. II – 2. III. 1907 (*Wlsm.*). —Gran Canaria: (*Richter*)[1–2]. Thirty-two specimens.

Bred from larvae reminding one much of those of *Brachmia rufescens* Hw. in their black and white oblique striping. Head honey-yellowish, edged with blackish; pronotal plate honey-yellow, posteriorly broadly black-margined lunately, suture honey-yellow; mesothorax, metathorax, and abdominal somites I–II blackish, mesothorax conspicuously separated by white from the metathorax and prothorax, the latter similarly separated from the head; abdominal somites III–IX white, with blackish markings—the lateral markings are oblique, as in *rufescens*, but having no pale dorsal stripe to interrupt them, anteriorly above, they form on each segment a complete arcuate band, followed on somites III–VII by a transverse bar of the same colour, but on V this bar is not apparent, owing to dark dorsal suffusion; normal spots distinct, black; legs black, abdominal claspers tipped with blackish; *long.* 15 mm. (99006 Mus. Wlsm.). The larvae roll the leaves of *Ipomoea quinquefolia* in January, and are extremely abundant on this introduced plant at Santa Cruz, especially on a wall below the Quisisana Hotel.

22. (349·1) APATEMA Wlsm.

Apatema Wlsm. Ent. Mo. Mag. XXXVI. 219–20 (1900); Stgr-Rbl. Cat. Lp. Pal. II. 265 no. 348bis (1901).

45. (3050·1) Apatema fasciatum Stn.

n. synn. = **quadripuncta* Stn. (*nec* Hw.); = *coarctella* Rbl.; = *mediopallidum* Wlsm.

Gelechia fasciata Stn. Ann-Mag. NH. (3 s.). III. 213 no. 18(1859)[1]; Wkr. Cat. Lp. BM. XXIX. 628 (1864)[2]. **Oegoconia* **quadripuncta* Stn. Tin. Syr. As-Min. 41 no. 23 (1867)[3]. *Hypatima fasciata* Wlsm. Tr. Ent. Soc. Lond. **1894**. 538, 554 no. 56 (1894)[4]. *Lampros coarctella* Rbl. Ann. KK. Hofmus. XI. 129–30, 147 no. 198, Pl. 3 · 11 (1896)[5]. *Apatema mediopallidum* Wlsm. Ent. Mo. Mag. XXXVI. 220 no. 2223 · 1 (1900)[6]; Stgr-Rbl. Cat. Lp. Pal. II. 265 no. 3049bis (1901)[7]. *Hypatima fasciata* Stgr-Rbl. Cat. Lp. Pal. II. 164 no. 3073 (1901)[8]. *Borkhausenia coarctella* Stgr-Rbl. Cat. Lp. Pal. II. 178 no. 3380 (1901)[9]: Rbl. Ann. KK. Hofmus. XXI. 44 no. 229 (1906)[10].

Hab. WC. ASIA—Palestine[1]: Plains of Jordan, 1865 (*O. P. Cambridge*)[1]. S. EUROPE—Corsica[6-7]: Ajaccio, 6. V. 1896 (*Wlsm.*)[6]; Ile Rousse, 5. VI. 1898 (*Wlsm.*)[6]—S. Spain: Granada: Granada, 13–17. VI. 1901 (*Wlsm.*)—Gibraltar: 3. VI. 1903 (*Wlsm.*). N. AFRICA—Morocco: Tangier, 14. IV – 18. V. 1902 (*Wlsm.*)—Algeria: Biskra, 9. IV. 1903 (*Wlsm.*). **Madeiras**[1-2, 4-5, 8]—Madeira[4-5]: Funchal[4], The Mount (*Wollaston*)[4]—Deserta Grande[1, 4]: (*Wollaston*)[1, 4]. **Canaries**[5, 9-10]—Tenerife[5, 10]: Santa Cruz, 2. I – 20. II. 1907 (*Wlsm.*); Guimar, 20. III. 1904 (*Eaton*), 9. III – 18. IV. 1907 (*Wlsm.*); La Laguna, 27. III. 1904 (*Eaton*), 23. V. 1907 (*Wlsm.*); Puerto Orotava, 26–30. IV. 1895 (*Hedemann*)[5], 21. IV – 2. V. 1907 (*Wlsm.*).—Gran Canaria[5, 10]: Las Palmas, 9. V. 1895 (*Hedemann*)[5].

Having placed this species in the *Oecophoridae*, through failing to observe that veins 6 and 7 of the hindwings were stalked, Prof. Rebel not unnaturally overlooked my genus *Apatema* (*Gelechiadae*, 1900), allied to *Oecogenia* (†*Oegoconia*) Stn., and *Symmoca* Hb.; and when describing *mediopallidum*, from Corsica, I overlooked the Madeiran *Gelechia fasciata* Stn., which I had erroneously referred to *Hypatima* Stgr-Wk. (nec Hb.) in 1894. The specimen which Stainton recorded as *Oegoconia quadripuncta* Hw., from the Jordan (9212 Mus. Wlsm.), is *Apatema fasciata* Stn., badly worn.

[It should be observed that Hypatopa Wlsm. Pr. US. Nat. Mus. XXXIII. 200, 211 (1907)=**Hypatima* HS. (nec Hb.) type *Oecophora inunctella* Z., and that Hypatima Hb. (nec HS.)= *Chelaria* Hw.]

46. (3050·2) Apatema lucidum, sp. n. (Plate LII. fig. 3.)

Antennae greyish ochreous; basal joint black above. *Palpi*

pale ochreous, the median joint shaded on its basal half with black, and with a black spot on its distal half externally. *Head* and *Thorax* pale ochreous, the latter slightly shaded with fawn-brown anteriorly. *Forewings* pale ochreous, partially shaded with umber-brown, especially below the fold, on the outer half of the costa, and around the apex where the dark scales project more or less through the pale ochreous cilia; the extreme base of the costa is narrowly black, a few black scales being scattered along the base of the dorsum; at one-third from the base are two small black spots placed obliquely in the cell, sometimes confluent, and beneath the outer one is a stronger black spot in the fold; beyond these, at the end of the cell and preceded by a small elongate spot at its upper edge, is an oblique reniform patch, covering the discoidal and produced inward from the upper angle —these markings are subject to more or less modification, and are less distinct in some specimens than in others, but their position is uniformly maintained. *Exp. al.* 13–14 mm. *Hindwings* pale straw-whitish; cilia pale ochreous. *Abdomen* and *Legs* pale ochreous, the tibiae and tarsi slightly shaded with brownish on their outer sides.

Type ♂ (98242); ♀ (98241) Mus. Wlsm.

Hab. Tenerife: Forest de la Mina, 7. IV. 1904 (*Eaton*); Realejo, 7. V. 1907 (*Wlsm.*); Las Mercedes, 19. V. 1907 (*Wlsm.*); La Laguna, 23. V. 1907 (*Wlsm.*); Tacaronte, 31. V. 1907 (*Wlsm.*). Thirteen specimens.

This species is somewhat larger on the average than *Apatema fasciatum*, and the forewings are uniformly broader; their invariably ochraceous ground-colour and the distribution of the black spots, with the absence of any distinct shade across the base, serve to distinguish it from its ally—like the forewings the hindwings are also of an entirely different hue. It does not appear to be a common species.

23. (349·2) AMBLOMA, gn. n.

(ἄμβλωμα = abortion.)

Type *Ambloma brachyptera* Wlsm.

Antennae without pecten; a little longer than the forewings; simple in ♂. *Maxillary Palpi* short. *Labial Palpi* bent upwards, reaching to vertex; median joint moderately clothed with slightly projecting scales below at apex; terminal joint short, smooth. *Head* and *Thorax* smooth. *Forewings* very short, tapering rapidly to a slightly depressed, obtusely pointed apex; costa evenly convex, flexus rather squarely developed, dorsum straight beyond the flexus: *neuration* 12 veins; 7 and 8 stalked, to costa; 6 out of stalk of (7+8); cell short. *Hindwings* $\frac{2}{3}$, much shorter, but of the same shape as the forewings; cilia $1\frac{1}{2}$: *neuration* 8 veins; 6 and 7 stalked; 3 and 4 stalked. *Abdomen* smooth. *Legs*, hind tibiae moderately hairy.

Allied to *Apatema* Wlsm. and *Symmoca* Hb., but differing in

its curiously aborted appearance, which recalls the form of *Embryonopsis* Etn. and *Hodegia* Wlsm., both insular forms, and, in the European fauna, the ♀ of *Chimabacche* Hb.

47. (3050·3) Ambloma brachyptera, sp. n.
(Plate LI. fig. 18.)

Antennae dark greyish fuscous, the basal joint hoary white. *Palpi* greyish fuscous externally, hoary white on their inner sides, and around the apex of the median joint. *Head* and *Thorax* hoary white, the latter with grey sprinkling. *Forewings* hoary white, profusely sprinkled with dark stone-grey scales, but devoid of pattern; a slight spot of ochreous suffusion on the cell a little before the middle of the wing; cilia hoary whitish, with a slight admixture of grey, especially about the tornus. *Exp. al.* 9 mm. *Hindwings* whitish grey; cilia pale grey. *Abdomen* ochreous; anal tuft hoary white. *Legs* whitish, dusted with brownish grey, the tarsi faintly banded.

Type ♂ (99007) Mus. Wlsm.

Hab. Tenerife: Guimar, 6. III. 1907. Unique.

Found under leaves of *Lotus sessilifolius*, on the black sand of the coast near Puerto Guimar. No other specimen seen.

24. (348·01) CHERSOGENES, gn. n.

(χερσογενής = bred on dry land.)

Type *Chersogenes victimella* Wlsm.

Antennae 1, simple in ♂; without pecten. *Maxillary Palpi* moderate. *Labial Palpi* extending fully three times the length of the head beyond it; median joint thickly clothed above and beneath, the lower scales projecting nearly half the length of the slender, erect terminal joint, beyond its base. *Haustellum* moderate. *Head* and *Thorax* moderately smooth. *Forewings* narrow, elongate, lanceolate, with straightened costa and slightly curved dorsum tapering to a point: *neuration* 12 veins; 7 and 8 stalked, 7 to termen; rest separate. *Hindwings* as broad as the forewings, considerably shorter, but much the same shape; cilia $1\frac{1}{2}$: *neuration* 8 veins; 6 and 7 long-stalked; 3 and 4 long-stalked. *Abdomen* smooth, somewhat flattened; uncus and claspers strongly developed. *Legs*, hind tibiae slightly hairy.

This genus is most nearly allied to *Epanastasis* Wlsm. but differs in the structure of the palpi.

48. (3022·01) Chersogenes victimella, sp. n.
(Plate LI. fig. 17.)

Antennae dark brownish fuscous. *Palpi* hoary whitish, sprinkled with fuscous scales on their outer sides. *Head* and *Thorax* cinereous, dusted with fuscous. *Forewings* pale cinereous,

densely sprinkled with fuscous throughout, except along a narrow line running from the base to the lower angle of the cell, with a slight break about its middle; on either side of this break is a small spot of raised dark fuscous scales, two similar spots appearing on either side of the outer end of the pale line, the lower spot in each case being a little further from the base than the one above it; there is also an indication of a small group of dark fuscous scales resting on the upper edge of the cell at its base; cilia cinereous, sprinkled with fuscous. *Exp. al.* 12 mm. *Hindwings* and cilia dark tawny brown. *Abdomen* brownish cinereous. *Legs* pale cinereous, slightly dusted with fuscous.

Type ♂ (99008) Mus. Wlsm.

Hab. Tenerife: Santa Cruz, 29. IV. 1907. Unique.

The most persistent efforts to secure another specimen of this very distinct species were unsuccessful.

25. (348·02) EPANASTASIS, gn. n.

(ἐπανάστασις = rebellion.)

Type *Holcopogon sophroniellus* Rbl.

Antennae nearly as long as the forewings, slightly serrate; without pecten. *Maxillary Palpi* short, dependent. *Labial Palpi* clothed with projecting scales beneath, these extending beyond the base of the terminal joint; terminal joint not more than half the length of median, smooth. *Haustellum* well-developed. *Head* and *Thorax* smooth. *Forewings* elongate, lanceolate, the dorsum slightly more convex than the costa: *neuration* 12 veins; 7 and 8 stalked, 7 to termen; rest separate. *Hindwings* 1, apex slightly depressed, termen very oblique, almost sinuate, flexus moderately developed; cilia 1: *neuration* 8 veins; 6 and 7 long-stalked; 3 and 4 stalked. *Abdomen* smooth. *Legs*, hind tibiae slightly hairy above.

Has much the appearance of *Apiletria* Ldr., to which it is closely allied, but differs in having vein 7 of the forewings to termen, in which it agrees with *Symmoca* Hb.; differing from *Symmoca*, as also from *Apiletria*, in its more roughly clothed palpi, with much shorter terminal joint.

49. (3022·02) Epanastasis sophroniella Rbl.

Holcopogon sophroniellus Rbl. Ann. KK. Hofmus. IX. 18, 89–90 no. 174 (1894)[1]: XI. 128–9, 147 no. 196, Pl. 3 · 10–10ª (1896)[2]: XIII. 381 no. 210 (1899)[3]: XXI. 44 no. 217 (1906)[4]: Stgr-Rbl. Cat. Lp. Pal. II. 160 no. 2980 (1901)[5].

Type ♂ (61057) Mus. Wlsm.

Hab. **Canaries**[1–5] — Tenerife[1–5]: IV. 1885 (*Leech*)[1]—Gran Canaria[2–5]: Teror, 10. V. 1895 (*Hedemann*)[2].

Despite persistent search I did not meet with this species.

26. (348) SYMMOCA Hb.

50. (3035·1) Symmoca canariensis Rbl. (Plate LII. fig. 1.)

Symmoca canariensis Rbl. Ann. KK. Hofmus. XXI. 38–9, 44 no. 218 (1906)[1].

Hab. Tenerife[1]: 1905 (*W. W. White*)[1]; Santa Cruz, 4–29. II. 1907 (*Wlsm.*), 3. IV. 1904 (*Eaton*), 29. IV. 1907 (*Wlsm.*); Guimar, 2. III – 14. IV. 1907 (*Wlsm.*); Arafo, 13–14. IV. 1907 (*Wlsm.*); Puerto Orotava, 21. IV – 10. V. 1907 (*Wlsm.*); La Laguna, 23. V. 1907 (*Wlsm.*).

I carefully examined the single specimen, in Mr. White's collection, at Guimar, which is the type of *Symmoca canariensis* Rbl., and bearing in mind the appearance of *Holcopogon sophroniellus* Rbl., at first imagined they must be the same, but, although I cannot agree with Prof. Rebel in placing *sophroniellus* in the genus *Holcopogon* Stgr. (which has been wrongly included in the *Gelechiadae*, and must be removed to the *Hyponomeutidae*), the shorter terminal joint of the palpi, even without other more important characters, is at once sufficient to separate it from the *Symmoca*. I found *S. canariensis* almost the commonest insect in the Island; it was abundant at Santa Cruz and Guimar, but I have no clue to the habits of the larva.

A fine series of 64 specimens exhibits considerable variation: in some the costal margin is broadly and conspicuously darkened, in contrast to the dull white ground-colour; in others a suffusion extends more or less over the whole wing; while in others again there is a yellowish streak along the cell, or sometimes two pairs of obliquely placed fuscous spots, before and beyond the middle, recalling vividly the pattern of *oxybiella* Mill., but more obliquely placed than in that species, and exhibiting scarcely any of the yellowish scales which are there to be found on the outer edge of the spots. Some of the smaller and more suffused varieties show a faint indication of these spots and approach very closely, except in colour, the only two specimens which I am obliged to eliminate from my series and to describe under another name (*aegrella*, sp.n.). *S. canariensis* was not found at the time and place where the new species occurred.

51. (3035·2) Symmoca aegrella, sp. n. (Plate LII. fig. 2.)

Antennae and *Palpi* sandy ochraceous. *Head* and *Thorax* pale ochreous. *Forewings* sandy ochreous, dusted with fawn-brownish scales, slightly more thickly above and below than upon the cell; cilia pale sandy ochreous. *Exp. al.* 13–14 mm. *Hindwings* shining, pale straw-ochreous, a little more brownish toward the apex; cilia very pale sandy ochreous. *Abdomen* and *Legs* pale sandy ochreous.

Type ♂ (99009) Mus. Wlsm.

Hab. Tenerife: La Laguna, 9. VI. 1907. Two specimens.

This species, which agrees with *canariensis* in having veins 3

and 4 of the forewings short-stalked, differs in its ochreous, rather than whitish, or greyish, colouring; in its paler and more ochreous hindwings, and in the absence of a dark shade along the outer side of the median joint of the palpi, which are also somewhat more slender in appearance.

27. (347) EPIDOLA Stgr.

—52. (3019) Epidola stigma Stgr.

Epidola stigma Stgr. Stett. Ent. Ztg. XX. 244 no. 93 (1859)[1]; Stn. Tin. S-Eur. 141, 152 no. 32 (1869)[2]; Stgr-Rbl. Cat. Lp. Pal. II. 162 no. 3019 (1901)[3].

Hab. S. EUROPE—Corsica: Punta Parata, ⊕ *Frankenia pulverulenta*, 7. VI, excl. 1. IX. 1899 (*Wlsm.*); Ajaccio, ⊕ *Crithmum maritimum*, 10. VI, excl. 7. IX. 1899 (*Wlsm.*)—S. Spain[1-3]: Chiclana, ⊕ *Quercus coccifera*, IV, excl. VI (*Stgr.*)[1-2]; Coto, Granada, ⊕ *Cistus*, *Helianthemum*, IV–V. 1901 (*Wlsm.*). N. AFRICA—Morocco: Tangier, ⊕ 29. II. 1902 (*Wlsm.*); Cape Spartel, ⊕ on palings, 14. IV. 1902 (*Wlsm.*)—Algeria: Constantine (*Stgr.*). **Canaries**—Tenerife: Santa Cruz, ⊕ on rocks, 30. I – 10. V. 1907 (*Wlsm.*).

I found, at different dates, six cases of this species on the rocks, above the Hotel Quisisana at Santa Cruz, but failed to rear any of them, repeating my previous experience as to the difficulty of breeding it. From more than a hundred cases, collected at Granada, not a single specimen emerged; but the few cases previously found in Corsica all produced the moth in due course. I am quite at a loss to account for the failures. Similar cases are made by species of the Australian genus *Ocystola* Meyr. (*Oecophoridae*).

II. BLASTOBASIDAE.

28. (351) BLASTOBASIS Z.

Prof. Rebel recorded the occurrence of *Blastobasis roscidella* Z. in the Canaries [Ann. KK. Hofmus. IX. 18, 90 no. 177 (1894)], on the strength of a specimen (61060) received from me in 1893. This was one of a series of seven specimens (61058–64) taken in Tenerife, by the late Mr. J. H. Leech, in April 1885, and is now recognised as *Scythris fasciatella* Rgt. (3536), *vide* no. 86, p. 973.

53. (3054) Blastobasis phycidella Z.

Oecophora (*Scythris*) *phycidella* Z. Isis **1839**. 193 no. 35[1]. *Blastobasis phycidella* Stgr-Wk. Cat. Lp. Eur. 309 no. 2303 (1871)[2]; Mill. Cat. Lp. Alp-Mar. 346 (1875)[3]; Hrtm. MT. Münch. Ent. Ver. IV. 33 no. 2303 (1880)[4]; Srhgn. Kleinschm. MBrndbg. 221–2 no. 305 (1886)[5]; MP-FT. Nat. Sic. VIII. 187 (1889)[6]; Meyr. Ent. Mo. Mag. XXVII. 59 (1891)[7]. *Blastobasis ? phyci-*

della Rbl. Ann. KK. Hofmus. VII. 276, 283 no. 60 (1892)[8]. *Blastobasis phycidella* Rbl. Ann. KK. Hofmus. IX. 18, 90 no. 176 (1894)[9]: XXI. 44 no. 220 (1906)[10]; Sbld. Deutsche Ent. Zts. Iris XI. 317 (1898)[11]; Stgr-Rbl. Cat. Lp. Pal. II. 163 no. 3054 (1901)[12].

Hab. WC. ASIA[2, 9, 12]. S. EUROPE[1–4, 6, 8–9, 12] — GERMANY[1–2, 4–5, 12]—S. AUSTRIA[2, 12]—SWITZERLAND[12]—ITALY[2]: San Remo, 2. IV. 1893 (*Wlsm.*); Rome, 10–25. IV. 1893 (*Wlsm.*)—SICILY[4, 6]—CORSICA: Ajaccio, 4–6. V. 1896, 16. VI. 1899 (*Wlsm.*)—S. FRANCE[3]: Cannes, 20. IV. 1890, 1. VI. 1892, ⊕ *Rubia peregrina*, excl. V. 1881 (*Wlsm.*); Napoule, 24. V. 1892 (*Wlsm.*); Thués-les-bains, 18–21. VI. 1900 (*Wlsm.*)—SPAIN[11]: GRANADA: Granada, 17. VI. 1901 (*Wlsm.*): GIBRALTAR, 3. VI. 1903 (*Wlsm.*). N. AFRICA—ALGERIA[7–9, 12]: El-Biar, 21. IV. 1893 (*Eaton*); Bône, 11. V. 1896 (*Eaton*); Azazga, 2. IX. 1893 (*Eaton*)—MOROCCO: Tangier, 2–4. V. 1902 (*Wlsm.*). **Canaries**[8–10, 12]—TENERIFE[9–10]: IV. 1885 (*Leech*)[9]; La Laguna, 23. V – 9. VI. 1907 (*Wlsm.*)—GRAN CANARIA[8–10]: (*Richter*)[8–10].

Five ♂ ♂ from La Laguna at the end of May and the beginning of June: one of these specimens (♂ 98233), with broader and more pointed wings, taken on May 23rd, is abnormally large (*exp. al.* 19·5 mm.) for a representative of this species, but it cannot otherwise be separated.

Rebel mentions a single worn ♂, with notched antennae and hindwings similar to those of *phycidella* Z., as taken at Orotava, 20. IV [*Blastobasis sp.* Rbl. Ann. KK. Hofmus. XI. 132 no. 201[b] (1896)]. He apparently regarded it as distinct from both *phycidella* and *rubiginosella*.

54. (3056) BLASTOBASIS RUBIGINOSELLA Rbl.

= *sp.* 179 Rbl.

Blastobasis sp. Rbl. Ann. KK. Hofmus. IX. 18, 91 no. 179 (1894)[1]: XXI. 44 no. 223 (1906)[2]. *Blastobasis rubiginosella* Rbl. Ann. KK. Hofmus. XI. 130–1, 147 no. 200, Pl. 3 · 12 (1896)[3]: XXI. 44 no. 221 (1906)[4]: Stgr-Rbl. Cat. Lp. Pal. II. 163 no. 3056 (1901)[5].

Hab. TENERIFE[1–5]: IV. 1885 (*Leech*)[1]; Guimar, 4. III – 16. IV. 1907 (*Wlsm.*); La Laguna, 8. IV. 1904 (*Eaton*), 7. VI. 1907 (*Wlsm.*); Puerto Orotava, 21. IV. 1895 (*Hedemann*)[3], 30. IV. 1907 (*Wlsm.*); Las Mercedes, 29. V – 7. VI. 1907 (*Wlsm.*); Tacaronte, 31. V. 1907 (*Wlsm.*).

Twenty-eight specimens were taken at Guimar, Tacaronte, Puerto Orotava, Las Mercedes, and La Laguna, from March 4th to June 7th, but the larva remains unknown.

The specimen mentioned by Rebel as *Blastobasis sp.* 179 (*l. c.* 1) is in my collection (♂ 61053); it is undoubtedly a worn ♂ of *rubiginosella*; the type of the species, when subsequently described, having been a ♀.

55. (3056·1) Blastobasis velutina, sp. n. (Plate LII. fig. 4.)

Antennae and *Palpi* ash-grey, the latter sprinkled with black scales. *Head* and *Thorax* ash-grey. *Forewings* ash-grey, with a short square patch of black scales at the base of the costa, followed at a distance equal to its own length by a broad transverse band of black scales, some conspicuously raised, especially along its outer edge, which is convex and reaches nearly to the middle of the wing; its inner edge approaches nearer to the base on the dorsum than on the costa; beyond this patch, which in some specimens appears divided into two fasciae, the wing is much more sparingly bestrewn with black scales, which however are somewhat thickened on the margins at three-fourths, and around the apex; cilia brownish cinereous. *Exp. al.* 11–14 mm. *Hindwings* brownish grey; cilia brownish cinereous. *Abdomen* ash-grey, shaded at the sides and posteriorly with black; pale cinereous beneath. *Legs* brownish cinereous, the tarsi blackish, with whitish cinereous annulations.

Type ♂ (98258); ♀ (98263) Mus. Wlsm.

Hab. Tenerife: Guimar, 9–30. III. 1907; Tacaronte, 31. V. 1907; La Laguna, 9. VI. 1907. Four specimens.

Allied to *rubiginosella* Rbl., but distinguished by the broad, dark, transverse band *before* the middle of the wing. The antennae are deeply notched in the ♂.

56. (3060) Blastobasis fuscomaculella Rgt.

= *seeboldiella* Kreithn.[4]; = **marmarosella* Rbl. (nec Wlstn.)[3–4].

Oecophora fuscomaculella Rgt. Bull. Soc. Ent. Fr. XLVIII. (5 s. IX: **1879**). p. cxli (1880)[1]. *Oecophora seeboldiella* Kreithner Verh. ZB. Ges. Wien XXXI. SB. 20–1 (1881)[2]. *Blastobasis marmarosella* Rbl. Ann. KK. Hofmus. VII. 276–8, 283 no. 61. Pl. **7** · 6–6ª ♀ (1892)[3]: IX. 18, 90–1 no. 178 (1894)[4]. *Blastobasis fuscomaculella* Wlsm. Tr. Ent. Soc. Lond. **1894**. 538, 549 no. 47 (1894)[5]; Rbl. Ann. KK. Hofmus. XI. 130, 147 no. 199 (1896)[6]. Sbld. Deutsche Ent. Zts. Iris XI. 317. Pl. **11** · 15 (1898)[7]. *Blastobasis fuscomaculella* Rbl. Ann. KK. Hofmus. XIII. 377, 381 no. 213 (1899)[8]: XXI. 44 no. 224 (1906)[9]: Stgr-Rbl. Cat. Lp. Pal. II. 163 no. 3060 (1901)[10].

Hab. Spain [2–5, 7, 10]: Bilbao [2–4, 7], V [7], VII [2], VIII [7] — Portugal [1, 5, 10]: Coimbra [1]. **Madeiras** — Madeira [5, 10]. **Canaries** [3–6, 8–10] — Tenerife [3–4, 6, 8–9]: IV. 1885 (*Leech*)[4]; La Laguna, 23. V – 7. VI. 1907 (*Wlsm.*), VI. (*Cabrera*)[4]; Puerto Orotava, IX. 1889 (*Simony*)[3, 8] — Hierro [8]: Valverde, 9–14. II. 1898 (*Hintz*)[8].

This is apparently a scarce species, I only met with three specimens. Valverde is in Hierro, not in Tenerife.

29. (351·1) PROSTHESIS, gn. n.

(πρόσθεσις = an addition.)

Type *Prosthesis exclusa*, sp. n.

Antennae with pecten; ♂ simple, or minutely ciliate, not notched, nor attenuate at the base. *Maxillary Palpi* short, converging. *Labial Palpi* recurved, reaching above the vertex, closely clothed; terminal joint shorter than median. *Haustellum* scaled at the base. *Head* and *Thorax* smooth. *Forewings* narrow, elongate, evenly lanceolate: *neuration* 12 veins; 7 and 8 stalked, to costa. *Hindwings* nearly as broad as the forewings, acutely lanceolate, the costa straighter than the dorsum: *neuration* 7 veins (3 and 4 coincident); (3+4) and 5 stalked; 6 and 7 remote, almost parallel. *Abdomen* smooth. *Legs*, hind tibiae moderately hairy.

This genus agrees with *Blastobasis* Z., *Epistetus* Wlsm., and *Zenodochium* Wlsm. in having 3 and 4 of the hindwings coincident, stalked, or connate, with 5. It differs from *Epistetus* and *Zenodochium* in having a pecten instead of a conchoidal shield of scales on the basal joint of the antennae, and from *Blastobasis*, with which it agrees in having a pecten on the basal joint, in the absence of a notch.

57. (3067·1) PROSTHESIS EXCLUSA, sp. n. (Plate LII. fig. 5.)

Antennae stone-whitish. *Palpi* stone-greyish, sprinkled with fuscous; the median joint fuscous on its outer side nearly to the apex. *Head* and *Thorax* stone-grey. *Forewings* pale stone-grey, sparsely sprinkled with fuscous and rust-brown scales; a small spot at the base of the costa, a narrow fascia at one-third from the base, much mixed with rust-brown and strongly angulated outward on the cell, whence it runs nearer to the base on the dorsum than on the costa; at two-thirds a rather strong group of fuscous and brownish scales, on the dorsum, is more or less connected by scattered scales across the wing to a smaller costal spot a little nearer to the apex, and these again are more or less connected with each other by a chain of six or seven obscure marginal spots running around the apex; cilia pale brownish grey. *Exp. al.* 12–14 mm. *Hindwings* grey; cilia brownish grey. *Abdomen* greyish fuscous, with narrow, shining, pale steely grey, transverse bands. *Legs* stone-greyish, thickly speckled with brownish fuscous on their outer sides.

Type ♂ (98291); ♀ (98298) Mus. Wlsm.

Hab. TENERIFE: Puerto Orotava, 25. IV – 3. V. 1907; La Laguna, 23. V – 9. VI. 1907; Las Mercedes, 29. V – 7. VI 1907. Nineteen specimens.

30. (352·1) ZENODOCHIUM Wlsm.

ZENODOCHIUM Wlsm. Ent. Mo. Mag. XLIV. 49 (1908).

Type *Zenodochium monopetali* Wlsm.

58. (3069·2) ZENODOCHIUM POLYPHAGUM, sp. n.
(Plate LII. fig. 6.)

= *Blastobasis sp.* Rbl. Ann. KK. Hofmus. XI. 131, 147 no. 201[a] (1896)[1]: XXI. 44 no. 222 (1906)[2].

Antennae brownish fuscous. *Palpi* brownish fuscous, the distal end of the median joint narrowly whitish. *Head* and *Thorax* whitish, sprinkled, or sometimes entirely suffused, with brownish fuscous. *Forewings* usually dirty whitish, but varying from clear white to dull ash-colour, with brownish fuscous streaks and blotches; the usually paler basal third of the wing has a small spot at the base of the costa, one or two short length-streaks on and above the fold, and another near the dorsum, and is sometimes also profusely sprinkled with brownish fuscous scales; at one-third occurs a slightly inverted triangular costal spot, between which and an ill-defined, outwardly oblique, dorsal patch the paler ground-colour asserts itself in a narrow, oblique, separating band; on the median area is a short length-streak along the upper edge of the cell, and much sprinkling (sometimes considerable suffusion) of brownish fuscous; at three-fourths is a transverse, narrow, brownish fuscous band, slightly inverted from costa to dorsum, and sometimes interrupted below the costa, and beyond is another short median length-streak and a series of about six dentate streaks around the margin; cilia hoary, faintly sprinkled and narrowly striated with brownish grey. *Exp. al.* 13–20 mm. *Hindwings* brownish grey; cilia shining, yellowish brown along their base, greyer beyond. *Abdomen* grey. *Legs* brownish grey.

Type ♂ (98227); ♀ (98221); *PT.* var. ♂ (98210) Mus. Wlsm.

Hab. TENERIFE[1-2]: Puerto Orotava, 24. IV. 1895 (*Hedemann*)[1], 23. IV – 7. V. 1907, ⊕ in refuse on *Artemisia canariensis*, 27. III, excl. 4. VI – 2. VIII. 07, ⊕ *Allagopappus dichotomus*, 4. IV, excl. 4. V – 4. VII. 07, ⊕ *Senecio kleinia*, IV[e], excl. 13–31. V. 07, ⊕ *Sonchus gummifer*, 23. IV, excl. 23. VI. 07, ⊕ *Pinus canariensis*, 20. IV, excl. 19. V – 11. VI. 07, ⊕ *Rubia fruticosa*, II, excl. 18. V. 07, ⊕ *Cytisus proliferus*, 22. IV, excl. 29. IV – 10. VI. 07, ⊕ *Rhus coriaria*, 28. IV, excl. 6. VI. 07 (*Wlsm.*); Bajomar, 26. V. 1907 (*Wlsm.*). Thirty-six specimens (33 bred, 3 captured).

The species varies much in the amount of sprinkling, or suffusion, of brownish fuscous on the ashy ground-colour, some of the whiter varieties being more plainly marked than others, but all possess the oblique pale separating line between the costal triangle and dorsal blotch. In appearance it reminds one rather of *Tecmerium anthophagum* Stgr., but its nearest ally is *Zenodochium xylophagum* Wlsm., a much darker species with indistinct

markings. I bred thirty-six specimens from accumulated refuse on *Artemisia canariensis* (3), *Allagopappus dichotomus* (13), *Senecio kleinia* (4), and *Sonchus gummifer* (1)—**Compositae**; *Pinus canariensis* (6)—**Coniferae**; *Rubia fruticosa* (1)—**Rubiaceae**; *Cytisus proliferus* (4)—**Leguminosae**; and *Rhus coriaria* (1)—**Terebinthaceae**; these are, I believe, all plants indigenous to the Island. The larva frequently bores into the stem of the food-plant before pupation, leaving a hole from which the imago escapes.

III. OECOPHORIDAE.

31. (369·01) AGONOPTERYX Hb.

Forewings: 2 and 3 stalked; 7 and 8 stalked.

Type *Pyralis ocellana* F.

=†*Agonopterix* Hb. (Type *ocellana* F.); =Pinaris Hb. (Type *arenella* S-D.); =Tichonia Hb. (Type *atomella* S-D.); =Epeleustia Hb. (Type *liturella* Hb.); =Haemylis Tr. (Type *assimilella* Tr.); =**Volucra* Z. (*conterminella* Z.), nec Ltr.; = *Depressaria* (A) Meyr.

Wallengren [Entomologisk Tidskrift II. 81 (1881)] described the new genus *Siganorosis* for species agreeing with *heracliana* DG. in having veins 2 and 3 of the forewings separate, thus restricting the use of *Depressaria* Hw. to species with 2 and 3 stalked. Unfortunately he overlooked the fact that in 1828 Curtis had cited *heracleana* as the type of *Depressaria* Hw., and figured its neuration. *Siganorosis* Wlgrn. must therefore sink as a synonym of *Depressaria* Hw., and also of *Volucra* Ltr. The species having 2 and 3 of the forewings stalked form a natural and easily recognisable genus and should be known as *Agonopteryx* Hb.

♂ 59. (3193·1) Agonopteryx cinerariae, sp. n.
(Plate LII. fig. 7.)

Antennae ochraceous, much clouded beyond the base with smoky fuscous. *Palpi* pale ochreous, the terminal joint minutely tipped with black, and having a black band around it above the middle. *Head* and tufted *Thorax* pale ochreous. *Forewings* with the costa moderately convex, apex depressed, termen oblique; pale ochreous, with a few darker fawn-ochreous shades tending to define the neuration; more or less profusely sprinkled with scattered black dots, some being placed along the termen, some on the costa, one on the costa beyond the middle, in position to form an equilateral triangle with two others on the disc, above and near the first of which is sometimes a blackish patch; a small black marginal spot also lies near the base of the dorsum. *Exp. al.* 17–20 mm. *Hindwings* very pale, shining, whitish ochreous; cilia still paler. *Abdomen* and *Legs* pale straw-ochreous.

Type ♂ (99011); *PT.* var. ♂ (99012) Mus. Wlsm.

Hab. Tenerife: Arafo, 13. IV. 1907 (*Wlsm.*); Barranco Lorez, near Orotava, ⊕*Senecio* (*Cineraria*) *populifolius*, 7. V, excl. 11–20. VI. 1907 (*Wlsm.*). Seven specimens.

Larvae found in April and May, at Guimar and near Orotava, on *Senecio* (*Cineraria*) *populifolius* and *heritieri*, mining between the upper and under surfaces of the leaves, causing a slightly puckered appearance, but very difficult to detect owing to their pale greenish white colour. Six specimens bred in June, and a single ♂ taken on the wing above Arafo, April 13th.

Allied to *assimilella* Tr., but easily separated by the distinct black spotting on the under side of the costa of the forewings, which are, as are also the hindwings, much paler than in that species.

60. (3201·1) Agonopteryx conciliatella Rbl.

Depressaria conciliatella Rbl. Ann. KK. Hofmus. VII. 272–4, 283 no. 55. Pl. **17** · 14 ♀ (1892)[1]; Wlsm. Tr. Ent. Soc. Lond. **1894**. 538, 546 no. 40 (1894)[2]; Stgr-Rbl. Cat. Lp. Pal. II. 171 no. 3223 (1901)[3]: Rbl. Ann. KK. Hofmus. XXI. 44 no. 226 (1906)[4].

Hab. Sicily[1-3]: Palermo[1]. **Madeiras**[2-3]—Madeira[2]: Funchal; The Mount (*Wollaston*)[2]. **Canaries**[1-4]—Tenerife[1]: Agua Mansa and Pedro Gil, ⊕*Cytisus proliferus*, 20. IV, excl. 20–23. V. 1907 (*Wlsm.*); Pedro Gil, 1420 m., 30. VII. 1889 (*Simony*)[1]—Gran Canaria[1]: San Mateo, 805 m., 7. VIII. 1890 (*Simony*)[1].

The only named species, of the unrestricted genus *Depressaria*, recorded by Rebel in his complete list (1906) is *conciliatella*. In 1894 (*l. c.* **2**), I wrote that if I had rightly identified this species it was very variable. I have now two specimens, bred from larvae feeding in the leading shoots of *Cytisus proliferus*, from Pedro Gil and Agua Mansa respectively, which are much darker than the Madeiran examples, but not distinguishable in the position and character of the markings. Professor Rebel, throughout his description, compares *conciliatella* with "*yeatiana* F.," but it is much more nearly allied to *scopariella* Hnm., from which indeed some of the less speckled varieties are almost indistinguishable. The easiest way to separate them is by the costal markings on the underside: in *conciliatella* there is a wide pale band around costa and termen, much peppered and streaked with fuscous along the basal half of the costa: in *scopariella* the pale band is narrower and decidely less speckled.

61. (3222) Agonopteryx yeatsana F.

=†*yeatiana* F., ‡*yeatsana*. (T. P. Yeats, *nom. pr.*)

Pyralis yeatiana F. Sp. Ins. II. 286 no. 60 (1781)[1]. *Depressaria yeatiana* Rbl. Ann. KK. Hofmus. VII. 272–4 (1892)[2]; Stgr-Rbl. Cat. Lp. Pal. II. 171 no. 3222 (1901)[3].

Hab. C–S. EUROPE[1-3] — Corsica: Corté, ⊕ *Heloscyadium*

sp., 7. VI, excl. 20. VI. 1898 (*Wlsm.*)—S. FRANCE: R. Var, ⊕ *Peucedanum palustre*, 10. IV, excl. 18. VI. 1896 (*Wlsm.*). N. AFRICA—MOROCCO: Tangier, ⊕ *Heracleum sp.?*, 24 IV, excl. 19. V. 1902 (*Wlsm.*). **Canaries**—TENERIFE: Puerto Orotava, 4. V. 1907, ⊕ *Umbellifer*, 9. V, excl. 10. VI. 1907 (*Wlsm.*).

Six specimens taken, and one bred from an Umbellifer, growing under dripping rocks on the sea-coast, near Orotava. The plant appeared to be the same as that from which I bred this species in Corsica, in 1898, and which was named for me at the time "*Heloscyadium sp.*", but I am not sure that the species occurs in Tenerife: in any case my botanical knowledge is quite inadequate to decide the point from such specimens as were available at the date on which the larva was found near Orotava. My experience is, that this species occurs only on marshy ground; I have also bred it from *Peucedanum palustre*, gathered at the mouth of the Var, on the Riviera, and from *Heracleum sp.*, at Tangier.

62. (3232·1) AGONOPTERYX PEREZI, sp. n. (Plate LII. fig. 8.)

=**applana* Wlsm. (nec F.).

Depressaria applana Wlsm. Tr. Ent. Soc. Lond. **1894**. 538, 546 no. 41 (1894)[1].

Antennae smoky fuscous. *Palpi* cinereous, the median joint thickly sprinkled with black and tawny on the outer side, except in a narrow band around its upper end; terminal joint with a narrow black band around its base, a broader one before its apex, and the extreme apex minutely black. *Head* and *Thorax* cinereous, more or less tinged with fuscous; the latter with an elevated crest posteriorly. *Forewings* tawny reddish fuscous, with smoky black suffusion and speckling; a pale ochreous patch at the extreme base, its outer edge straight and black-margined to the upper edge of the cell, above which it is angulated and produced outward along the costa, and gradually absorbed in the darker ground-colour; on the cell, at one-third, are two clearly defined, almost contiguous, but obliquely diverging, black spots, the lower one slightly beyond the upper—both followed by a few ochreous scales, produced and broken into two spots, in line with the lower one on the cell; the slightly paler costa is obscurely spotted with dark fuscous throughout, and the termen is also narrowly spotted, the fuscous shading on the wing tending to follow and indicate the neuration; cilia corresponding in colour to the wing-surface; underside shining, sericeous, the costa and termen strongly speckled with fuscous. *Exp. al.* 16-20 mm. *Hindwings* and cilia shining, pale cinereous, the cilia with slender parallel shade-lines running through them; underside shining, sericeous, the costa and termen strongly speckled with fuscous. *Abdomen* and *Legs* pale cinereous, the tarsi with four fuscous bands.

Type ♂ (99018); ♀ (99019) Mus. Wlsm.

Hab. **Madeiras**[1]—Madeira[1]. **Canaries**—Tenerife: Puerto Orotava, ⊕ *Ruta pinnata*, 14. V, excl. 4. VI – 1. VII. 1907 (*Wlsm.*). Twenty-four specimens.

The pale green larva rolls the leaves of *Ruta pinnata*, an indigenous and somewhat local plant, to which my attention was specially called by my friend Dr. George Perez, after whom I have named this *Agonopteryx*, and whose great assistance in the botanical work connected with my study of the Tenerife Lepidoptera I gratefully acknowledge.

As compared with *Agonopteryx applana* F., the chief points of difference noticeable in *perezi* are that the pale basal patch is sharply angulate (not curved outward) at the radius, along and above which are some distinctly ochreous scales; the discal spots are yellowish, not white, and the antennae are shorter. Looking again at the rather poor specimen which I recorded from Madeira, as *applana*, in 1894, I am now inclined to regard this as *perezi*.

32. (369) DEPRESSARIA Hw.

Forewings: 2 and 3 separate; 7 and 8 stalked.

Type *Phalaena Tortrix heracleana* (L.) DG., F., Hw.

Depressaria Hw. (Type *heracleana* Hw.); =*Pyralis* F. (II.) Ltr.; [=*Piesta Blbg.* (Type *heracleana* L.) *LN.*]; =+"*Pyrale*, *Volucre*" Ltr. (Type *heracleana* F.); =*Volucra* Ltr. (Type *heracleana* F.); =*Siganorosis* Wlgrn. (Type *heracleana* L., Wlgrn.); =Depressaria (B) Meyr.

63. (3299·1) Depressaria tenerifae, sp. n. (Plate LII. fig. 9.)

=*Depressaria sp.* Rbl. Ann. KK. Hofmus. XXI. 39, 44 no. 227 (1906)[1].

Antennae smoky fuscous. *Palpi* cinereous, densely speckled with smoky fuscous externally, and with a fuscous ring above the middle of the terminal joint. *Head* and *Thorax* pale slaty greyish, more or less sprinkled with tawny fuscous. *Forewings* slaty greyish, suffused, and obscurely blotched, with smoky fuscous; a very dark patch at the base, below the fold, leaving a narrow pale margin within it, is diluted upward and outward, and followed by two clouds of a similar colour on the cell, one before and one beyond the middle, of which the first is the darker, owing to black scaling continued from its lower edge in a series of two or three small spots reaching to the end of the cell; beyond the cell is a strong, outwardly curved, dark fuscous shade, preceding the speckled margin and cilia, the latter are delicately rosy-tipped. *Exp. al.* 17–19 mm. *Hindwings* and cilia pale, shining, rosy cinereous. *Abdomen* and *Legs* shining, cinereous; the tarsi with four fuscous bands.

Type ♀ (99020); ♂ (99021); ⊕ (99022) Mus. Wlsm.

Hab. Tenerife: 1905 (*White*)[1]; Santa Cruz, ⊕*Artemisia cana-*

riensis, 11. II, excl. 19. III – 3. IV. 1907 (*Wlsm.*); Guimar, ⊕ *Artemisia canariensis*, 25. III, excl. 9. IV – 23. V. 1907 (*Wlsm.*). Sixteen specimens.

Bred from a rather stout green larva, feeding in the leading shoots of *Artemisia canariensis*, at Santa Cruz and Guimar. As compared with the European species which feed on *Artemisia*, it is distinctly more suffused in its colouring, the darker patches being unaccompanied by any lines of whitish scales; indeed the whole insect has a much more silky, smooth appearance, with some gloss, not only in the hindwings, but also on the anterior pair. It is perhaps nearest to *absinthivora* Frey, but the absence of any outward elongation of the median shade is a good character by which it may readily be distinguished.

64. (3306) Depressaria apiella Hb.

=*nervosa* Hw.; =**heracliana* Wlsm. (nec DG.).

Tinea apiella Hb. Smlg. Eur. Schm. VIII. (Tin.). 39. Pl. **14**· 94 (1796)[1]. *Depressaria nervosa* Hw. Lp. Br. 506 no. 4 (1811)[2]. *Pinaris apiella* Hb. Verz. Schm. 411 no. 3966 (1826)[3]. *Depressaria nervosa* Wlsm. Pr. Z. Soc. Lond. **1881**. 317 (1881)[4]. *Depressaria* **heracliana* Wlsm. Tr. Ent. Soc. Lond. **1894**. 538, 546 no. 42 (1894)[5]. *Depressaria nervosa* Stgr-Rbl. Cat. Lp. Pal. II. 174 no. 3306 (1901)[6]; Busck, Pr. US. Nat. Mus. XXIV. 747 no. 34 (1902)[7]; Dyar Bull. US. Nat. Mus. **52**. 522 no. 5887 (1902)[8].

Hab. EUROPE[1–8]. N. AFRICA—Morocco: Tangier, ⊕ *Ferula sp.*, excl. 19. V. 1902 (*Wlsm.*); ⊕ *Oenanthe peucedanifolia*, 6. V, excl. 7–15. VI. 1902 (*Wlsm.*); ⊕ *Thapsia garganica*, 9. V, excl. 7. VI. 1902 (*Wlsm.*). **Madeiras**[5]—Madeira: (*Wollaston*)[5]. **Canaries**—Tenerife: Guimar, ⊕ *Bupleurum aciphyllum*, 6. III, excl. 16. IV. 1907 (*Wlsm.*); ⊕ *Umbellifer*, 14. IV, excl. 22. V. 1907 (*Wlsm.*). UNITED STATES[4, 7–8]—Oregon[4, 7–8]: grant co.: Camp Watson, IV[m]. 1872 (*Wlsm.*): jackson co.: near Rogue River, 4–6. V. 1872 (*Wlsm.*).

For more than half a century *apiella* Hb. (1796) has been sunk as a synonym of *nervosa* Hw. (1811): so long as these two names are held to pertain to the same species, it is obvious that that species must be named *apiella* Hb.

Two specimens bred from an *Umbellifer*, found at Guimar, and one from the rare *Bupleurum aciphyllum* (=*salicifolium*) appear to be inseparable from this species: they agree exactly with specimens bred in Morocco, in 1902, from *Ferula*, *Oenanthe peucedanifolia*, and *Thapsia garganica*, and are only distinguished from my European series by their slightly larger size and darker colour, partly due to the freshness of the specimens. This species has not been met with in the United States since 1872, when I took two specimens in Oregon. I again refer to these two specimens to give the exact localities, viz., (91970) Camp Watson,

Grant Co., in Northern Oregon, taken in April 1872, and (91971) taken in Jackson Co., in Southern Oregon, 4–6 June 1872, when near Rogue River. These two American specimens have vein 5 of the hindwings out of the stalk of 3 and 4, in which they agree with Canary, Tangier, Madeira, and European specimens which have 5 connate with, or out of the stalk of 3 and 4; a character which occurs also in *discipunctella* HS. (=**pastinacella* Stn.). The specimen recorded by me from Madeira in 1894 (*l. c.* 5) as "*Siganorosis heracliana* DG." is a bleached example of *apiella* Hb.

33. (365) ETHMIA Hb.

=*Psecadia* Hb., Stgr-Rbl.

65. (3143) Ethmia bipunctella F.

Alucita bipunctella F. Ent. Syst. 668 no. 7 (1775)[1]. *Psecadia bipunctella* Rbl. Ann. KK. Hofmus. VII. 272, 283 no. 54 (1892)[2]: IX. 18, 89 no. 168 (1894)[3]: XIII. 377, 381 no. 201 (1899)[4]: XXI. 44 no. 225 (1906)[5]: Stgr-Rbl. Cat. Lp. Pal. II. 167 no. 3143 (1901)[6].

Hab. W. ASIA[2–3, 6]. C. and S. EUROPE[1–3, 6]—S. Spain: huelva: Coto, 23. IV. 1901 (*Wlsm.*). N. AFRICA[2–3, 6]—Morocco: Tangier, 11. II. 1902 (*Wlsm.*)—Algeria: Le Tarf, 29. VI. 1896 (*Eaton*). **Canaries**[2–6]—Tenerife[3–5]: Santa Cruz, 6–12. I. 1907, ⊕ *Symphytum*, 14. I – 13. II, excl. 5. IV. 1907 (*Wlsm.*), 30. IV. 1898 (*Hintz*)[4]; Las Mercedes, 7–29. III. 1904 (*Eaton*); La Laguna, 12. VI. 1889 (*Krauss*)[3]—Gran Canaria[2–5]: (*Richter*)[2–5].

Taken on the wing, and bred at Santa Cruz.

33ª. (376) HARPELLA Schrk.

65ª. (3329) Harpella forficella Sc.

Phalaena forficella Sc. Ent. Carn. 248 no. 638 (1763)[1]. *Harpella forficella* Rbl. Ann. KK. Hofmus. VII. 276, 283 no. 59 (1892)[2]: XXI. 44 no. 228 (1906)[3]: Stgr-Rbl. Cat. Lp. Pal. II. 176 no. 3329 (1901)[4].

Hab. C–S. EUROPE[1–4]. **Canaries**[2–4]—(*? gran canaria*[2]).

I did not meet with this species in Tenerife.

IV. HYPONOMEUTIDÆ.

34. (412) COLEOPHORA Hb.

66. (3713) Coleophora orotavensis Rbl.

Coleophora orotavensis Rbl. Ann. KK. Hofmus. XI. 137–8, 147 no. 214, Pl. 3 · 16 ♀ (1896)[1]: XXI. 44 no. 234 (1906)[2]: Stgr-Rbl. Cat. Lp. Pal. II. 193 no. 3713 ((1901)[3].

Hab. Tenerife[1–3]: Santa Cruz, 26. XII – 26. I. 1907 (*Wlsm.*); Guimar, 28. II – 12. IV. 1907 (*Wlsm.*), 24. III. 1904 (*Eaton*); Tacaronte, 1. IV. 1902 (*Eaton*); Puerto Orotava, 21–30. IV. 1905 (*Hedemann*)[1], 21. IV. 1907 (*Wlsm.*).

Exceedingly common everywhere. It seems to be attached to *Chenopodium*, and to appear in successive broods almost continuously.

67. (3713·1) Coleophora micromeriae, sp. n.

Antennae white, annulate with greyish fuscous; the basal joint roughly clothed, but not tufted. *Palpi* white, a broad greyish fuscous band spreading around the apex of the median, and base of the terminal joint, including some slightly projecting scales from the former. *Head* white, slightly shaded along the middle with greyish fuscous. *Thorax* white above; tegulae touched with greyish fuscous. *Forewings* greyish fuscous, the costa narrowly pure white from the base, widening outward, and continued to the apex, before which the costal cilia are slightly touched with grey; there is a less conspicuous line of white scaling along the fold and slightly diffused downward across the space beneath it to the dorsum, the base of the terminal cilia being also white, forming a streak which runs out through those of the apex; with this exception the cilia are pale brownish grey; the marginal white lines are clearly visible on the underside. *Exp. al.* 8–11 mm. *Hindwings* very pale bluish grey; cilia pale brownish grey, becoming whitish at their tips around the apex. *Abdomen* brownish grey above, white beneath; anal clothing whitish. *Legs* white, the hind tarsi faintly speckled.

Type ♀ (99023); ♂ (99024) Mus. Wlsm.

Hab. Tenerife: Puerto Orotava, 19. II. 1907, 5. V. 1907 (*Wlsm.*); Guimar, 27. II – 14. IV. 1907 (*Wlsm.*), ⊕ *Micromeria varia*, 23. II, excl. 10. V. 1907 (*Wlsm.*); Cruz de Afur, 5. IV. 1904 (*Eaton*); Forest de la Mina, 7. IV. 1904 (*Eaton*). Sixteen specimens, one bred.

The case is brown, short and cylindrical, sprinkled with short whitish hairs, like the leaf-surface of the food-plant; the mouth is slightly oblique. It was found on *Micromeria varia*, among which plant I took several specimens, at Guimar, at about 1200 ft. I also met with the species at Puerto Orotava, in February, and in May, and received three specimens from Mr. Eaton, taken in April 1904, at Cruz de Afur, and in the Forest de la Mina.

68. (3773) Coleophora confluella Rbl.

Coleophora confluella Rbl. Ann. KK. Hofmus. VII. 278–9, 283 no. 63, Pl. **17** · 15 ♂ (1892)[1]: XXI. 44 no. 235 (1906)[2]: Stgr-Rbl. Cat. Lp. Pal. II. 195 no. 3773 (1901)[3].

Hab. **Canaries**[1–3]—La Palma[1, 3]: Pico del Berigoya, 1400–1500 m., 21. VIII. 1889 (*Simony*)[1]—Tenerife: Guimar, ⊕*Helianthemum guttatum*, 27. III, excl. 25. IX – 1. X. 1907 (*Wlsm.*); La Laguna, ⊕ *Helianthemum guttatum*, 3. V. 1907 (*Wlsm.*).

Larvae were common, in cases made of leaves (similar to those of *helianthemella* Mill.), on *Helianthemum guttatum*, and also on

Cistus monspeliensis. I found numerous cases at Guimar, at the end of March, from which I bred two specimens only at the end of September and the beginning of October. I have always found *helianthemella* an extremely difficult species to rear, under the conditions to which a travelling entomologist is restricted, and *confluella* presents similar difficulties, for I bred only the two specimens mentioned, although larvae were collected subsequently at La Laguna in the beginning of May.

68ª. Coleophora sp. ?

Three cases found on *Adenocarpus foliolosus*, at Guimar, 26th February, were extremely similar to those of *confluella*, and might have been taken for stray specimens from the *Helianthemum*, had I not observed traces of their feeding on the leaves. They were slightly smaller than the others, but would not feed in captivity and I failed to rear them.

69. (3815·1) Coleophora aegyptiacae Wlsm.

Coleophora aegyptiacae Wlsm. Ent. Mo. Mag. XLIII. 148 no. 3815·1 (1907)[1].

Hab. Algeria: Hammam-es-Salahin, ⊕ *Salvia aegyptiaca*, III – IV, excl. IV.[1] **Canaries**—Tenerife: Santa Cruz, ⊕ *Salvia aegyptiaca*, 16. I – II. 1907.

Several cases of this Algerian species were found at Santa Cruz, at different dates in January and February, on *Salvia aegyptiaca*, but were not reared.

70. (3840·1) Coleophora teidensis, sp. n.

Antennae pale grey, with very faint paler annulations; basal joint smooth. *Palpi* greyish white; smooth, a few scales projecting from the end of the median, before the base of the short terminal joint. *Head* and *Thorax* pale silky grey. *Forewings* narrow; pale silky grey, without any ochreous or brownish scaling; a faint greyish white line, along the costa, is a little widened about the middle, but thence touches only the outer ends of the greyish costal cilia; other still fainter greyish lines running throughout the wing-length, one along the upper edge of the cell throwing three slender branches to the costa along the principal veins one along the middle of the cell leaves the costa near the base, approaching and running parallel to the termen, another lying below it along the fold; cilia pale stone-grey. *Exp. al.* 13 mm. *Hindwings* very pale bluish grey; cilia pale stone-grey. *Abdomen* dark leaden grey. *Legs* whitish grey.

Type ♂ (99026); ♀ (99027) Mus. Wlsm.

Hab. Tenerife: Puerto Orotava, 14. V. 1907; Tacaronte, 31. V 1907; La Laguna, 5. VI. 1907. Three specimens.

The nearest approach to this species in our European lists is *algidella* Stgr., which it greatly resembles in colouration and in

the faint whitish longitudinal lines; it differs, however, decidedly in its much narrower forewings. I should place it between *algidella* Stgr. and *murinipennella* Dp.: its scarcely annulated antennae and more silky grey colour separate it from the latter.

♂ 71. (3852) Coleophora atlanticella Rbl.

Coleophora atlanticella Rbl. Ann. KK. Hofmus. XI. 138–9, 147 no. 215 (1896)[1]: XXI. 44 no. 236 (1906)[2]: Stgr-Rbl. Cat. Lp. Pal. II. 198 no. 3852 (1901)[3].

Hab. **Canaries**[1-3]—Tenerife[1-2]: Santa Cruz, 22. I – 10. II. 1907 (*Wlsm.*); Guimar, 12–30. III. 1907 (*Wlsm.*); Puerto Orotava, 27. IV. 1895 (*Hedemann*)[1] — Gran Canaria[1-2]: Las Palmas, 7. V. 1895 (*Hedemann*)[1].

A good series taken at Santa Cruz; I also met with it at Guimar.

♂ 72. (3895) Coleophora artemisiae Mhlg.

Coleophora artemisiae Mhlg. Stett. Ent. Ztg. XXV. 163–5 (1864)[1]; Stgr-Rbl. Cat. Lp. Pal. II. 199 no. 3895 (1901)[2].

Hab. Germany[1-2]—Austria[2]. **Canaries**—Tenerife: Guimar 12. IV. 1907; Puerto Orotava, 21. IV. 1907.

Six specimens taken at Puerto Orotava, and two at Guimar, among *Artemisia canariensis*.

♂ 73. (3904·1) Coleophora poecilella Wlsm.

Coleophora poecilella Wlsm. Ent. Mo. Mag. XLIII. 129 no. 3904·1 (1907)[1].

Hab. Algeria: Biskra, Hammam-es-Salahin, ⊕ *Suaeda vermiculata*, IV, excl. IV – V, X.[1] **Canaries**—Tenerife: Puerto Orotava, ⊕ *Salsola oppositifolia*, 4. VI. 1907.

Three of the easily-recognisable, long, tapering, cylindrical cases, found on *Salsola oppositifolia*, at Orotava, are undistinguishable from those taken in Algeria on the allied *Suaeda vermiculata*; but again I was unable to rear them.

35. (389) BATRACHEDRA Stn.

74. (3562) Batrachedra ledereriella Z.

Cosmopteryx ledereriella Z. Stett. Ent. Ztg. XI. 198 no. 220 (1850[1]. *Batrachedra ledereriella* Wlsm. Ent. Mo. Mag. XXVII. 149 (1891)[2]; Rbl. Ann. KK. Hofmus. XI. 132, 147 no. 205 (1896)[3]: XXI. 44 no. 232 (1906)[4]: Stgr-Rbl. Cat. Lp. Pal. II. 185 no. 3562 (1901)[5]; Wlsm. Ent. Mo. Mag. XXXIX. 167 (1903)[6].

Hab. WC. ASIA[6]. S. EUROPE[1-6]—S. France: Cannes,

⊕ in webbed rubbish on *Mimosa*, excl. 20. IV. 1879, ⊕ in webs of Spiders and Larvae, II–III, excl. IV. 1881, ⊕ *Juniperus oxycedrus*, III, excl. 24. V. 1890, ⊕ *Rosmarinus officinalis*, III, excl. 16. V. 1890, ⊕ old fruit of *Mespilus germanica*, excl. 12. V. 1892 (*Wlsm.*); Beaulieu, ⊕ rubbish in leafy galls on *Salix pendula*, 6. IV, excl. 5. V – 17. VIII. 1890 (*Wlsm.*)—Spain: malaga: Malaga, ⊕ in seed-heads of *Anthyllis cytisoides*, XII, excl. 2. IV. 1901, ⊕ *Genista umbellata*, 28. I, excl. 1. IV. 1901, ⊕ *Cistus albidus*, 27. I, excl. 5–8. IV. 1901 (*Wlsm.*). N. AFRICA —Morocco: Tangier, 11. I., 8. III., 2. V. 1902 (*Wlsm.*), ⊕ *Cistus ladaniferus*, 9. XII, excl. 30. VII. 1902 (*Wlsm.*); Cape Spartel, ⊕ seeds of *Cistus sp.*, excl. 16. VIII. 1902 (*Wlsm.*). **Canaries**[3-5] —Tenerife[3]: La Laguna, 2. III. 1904 (*Eaton*), 7. VI. 1907 (*Wlsm.*); Guimar, 2. III – 14. IV. 1907 (*Wlsm.*); Puerto Orotava, 11. IV. 1895 (*Hedemann*)[3], ⊕ old seeds *Senecio kleinia*, 26. IV, excl. 29. IV – 10. VI. 1907, ⊕ diseased stems *Cytisus proliferus*, 24. IV, excl. 13. V. 1907, ⊕ *Pinus canariensis*, 20. IV, excl. 24–29. V. 1907, ⊕ *Mangifera indica*, 14. V, excl. 25. VI – 14. VII. 1907, ⊕ *Sonchus leptocephalus*, 30. IV, excl. 7. VII. 1907 (*Wlsm.*); Arafo, 13. IV. 1907 (*Wlsm.*)—Gran Canaria[3]: Las Palmas, 9. V. 1895 (*Hedemann*)[3].

Taken commonly at Guimar, and bred from *Senecio*, *Cytisus*, *Pinus*, *Mangifera*, and *Sonchus*, bearing out my previous experience of the habits of the species in Europe and Morocco, where it is invariably a rubbish-feeder, among débris of spiders' webs, and frass of other larvae on numerous plants as enumerated above.

36. (388) COSMOPTERYX Hb.

75. (3550·1) Cosmopteryx coryphaea, sp. n. (Plate LII. fig. 10.)

=*Cosmopteryx sp. n.* Wlsm. Ent. Mo. Mag. XXXVII. 237 (1901)[1].

Antennae pale buff, spotted with white along their outer sides, two black, and two white annulations occurring before a darker band, which precedes the four or five yellowish distal joints. *Palpi* white, with pale buff lateral lines throughout. *Head* olivaceous brownish, with a short central, and two longer lateral lines. *Thorax* olivaceous brown, with a central white line, and one along the inner edge of each of the tegulae. *Forewings* olivaceous brown to about three-fifths of their length, on which colour are five slender silvery white lines; one from the base of the costa, slightly diverging, and terminated below the costa at at about one-third; another, above it along the costa, slightly widened towards its outer end; a third, from the middle of the base, extending to the outer margin of the olive-brown space, whence a shorter, inverted, streak diverges, terminating opposite to the outer end of the first costal; the fifth streak is from the base, along the dorsum, and is rather shorter than the first costal;

beyond the brown space, and therefore a little beyond the middle of the wing, commences a pale lemon-yellow patch, which is continued toward the apex, bearing the following markings: first, two bright silver spots, each touching the brown preceding space, and each carrying a jet-black dot on the side opposite to it; beyond these, at a distance equal to about the middle of the wing, are two corresponding spots of bright silver scales, but with only one or two black scales attached, the yellow ground-colour extends between and beyond these, blending to creamy white along the costa and dorsum to the apex, the margins being separated by a short olive-brown dash reaching the extreme apex; cilia brownish grey. *Exp. al.* 9–10 mm. *Hindwings* pale grey; cilia brownish grey. *Abdomen* yellowish. *Legs* white, shaded externally with oblique olivaceous brownish bands.

Type ♂ (99029); ♀ (99030) *Santa Cruz*, Mus. Wlsm.

Hab. SPAIN: MALAGA: Malaga, 29. IV. 1901 (*Wlsm.*)[1]. **Canaries**—TENERIFE: Santa Cruz, 12–16. II. 1907. Eight specimens.

Nearest to *similis* Wlsm., but differing in the continuation of the yellow band beyond the outer pair of silver spots, giving the wing a much lighter appearance; in this respect it agrees with *quadrilineella* Chmb., but differs in having five white lines in the dark basal area of the wing, of these the subcostal, the median, and the dorsal arise from the base.

76. (3553) COSMOPTERYX ATTENUATELLA Wkr.

n. syn.=*flavofasciata* E. Wlstn.*; =*lespedezae* Wlsm.

Gelechia attenuatella Wkr. Cat. Lp. BM. XXX. 1019 (1864)[1]. *Cosmopteryx flavofasciata* E. Wlstn. Ann-Mag. NH. (5 s.). III. 438 (1879)[2]: Lp. St. Helena 53 (1879)[2]. *Cosmopteryx lespedezae* Wlsm. Tr. Am. Ent. Soc. X. 198 (1882)[3]. [? =*Cosmopteryx* (? *gemmiferella* Clms.) Mschl. Ab. Senck. Nat. Ges. XV. 345, 354 (1890)[4]; Wlsm. Pr. Z. Soc. Lond. **1891**. 536, 548 (1892)[5]]. *Cosmopteryx lespedezae* Riley, Smith's List Bor-Am. 107 no. 5771 (1891)[6]. *Gelechia attenuatella* Wlsm. Pr. Z. Soc. Lond. **1891**. 519, 545 (1892)[7]. *Cosmopteryx lespedezae* Wlsm. Pr. Z. Soc. Lond. **1891**. 536, 548 (1892)[8]. *Cosmopteryx flavofasciata* Rbl. Ann. KK. Hofmus. IX. 91–2 (1894)[9]: XI. 133–4, 147 no. 208 Pl. **3**·13 (1896)[10]: XXI. 44 no. 230 (1906)[11]. *Cosmopteryx attenuatella* Wlsm. Pr. Z. Soc. Lond. **1897**. 105–6 no. 123 (1897)[12]. *Cosmopteryx flavofasciata* Stgr-Rbl. Cat. Lp. Pal. II. 185 no. 3553 (1901)[13]. *Cosmopteryx lespediza* Dyar Pr. Ent. Soc. Wash. IV. 478 (1901)[14]. *Cosmopteryx attenuatella* Dyar Bull. US. Nat. Mus. **52**. 535 no. 6068 (1902)[15]; Busck Pr. US. Nat. Mus. XXX. 710 (1906)[16].

Hab. UNITED STATES[3, 6, 12, 15-16]—TEXAS[8, 12, 16]: ⊕ *Lespedeza*[3, 8, 12]—N. CAROLINA[8, 12]—FLORIDA[14-16]: II–III[14]. WEST INDIES[1, 4-5, 7-8, 12, 16] — JAMAICA[1, 7, 12]: Constant Springs, 18.

[55]

* flavofasciata, Wolk. (= mimetis, Hayn) from St. Helena is [illegible]

XII – 2. I. 1905 (*Wlsm.*); Runaway Bay, 17. II – 13. III. 1905 (*Wlsm.*)—Hayti [12, 16]: V [12]; San Domingo [16]—[? Portorico [4–5, 12]] —St. Croix: V [12]—St. Vincent [7, 12]—Grenada: III–IV [12]—**St. Helena** [2, 9, 13]. **Canaries** [10–11, 13] — Tenerife [10–11]: Guimar, 19. III – 12. IV. 1907 (*Wlsm.*); Puerto Orotava, 1895 (*Hedemann*) [10], 29. IV. 1895 (*Hedemann*); 14. V. 1907 (*Wlsm.*) — Gran Canaria [10–11]: Las Palmas, 7–9. V. 1895 (*Hedemann*) [10].

Professor Rebel (l. c. **10**) records and discusses *flavofasciata* E. Wlstn., of which I have one of the examples (7244) collected by von Hedemann in the Botanical Gardens at Puerto Orotava, 29. IV. 1895, and six taken by myself at Puerto Orotava, 14. V., and Guimar, 19. III – 12. IV. 1907. I have now re-examined Mrs. Wollaston's type from St. Helena, and am convinced that it is the same as the species identified by Rebel under this name from Tenerife, but the possession of more specimens has now enabled me to correct the synonymy as follows:— *attenuatella* Wkr. (1864); = *flavofasciata* E. Wlstn. (1879); = *lespedezae* Wlsm. (1882)—thus proving that the species is widely distributed.

77. (3555) Cosmopteryx turbidella Rbl.

Cosmopteryx sp. Rbl. Ann. KK. Hofmus. IX. 18, 91–2 no. 183 (1894) [1]. *Cosmopteryx turbidella* Rbl. Ann. KK. Hofmus. XI. 135–6, 147 no. 209. Pl. 3 · 14 ♀ (1896) [2]: XXI. 44 no. 231 1906 [3]: Stgr-Rbl. Cat. Lp. Pal. II. 185 no. 3555 (1901 [4].

Hab. **Canaries** [1–4]—Tenerife [1–4]: Guimar, 5. II – 17. III. 1907 (*Wlsm.*), 20. III. 1904 (*Eaton*), ⊕ *Parietaria vulgaris*, 5. II, excl. 17–18. III. 1907 (*Wlsm.*); Puerto Orotava, ⊕ *Parietaria*, excl. 15–25. III. 1904 (*Eaton*), 16–30. IV. 1895 (*Hedemann*) [2]; Forest de la Mina, 17. III. 1902 (*Eaton*); Cruz de Afur, 5. IV. 1904 (*Eaton*); Las Mercedes, 28. V. 1907 (*Wlsm.*), VI. (*Cabrera*) [1]; Barranco del Loro (nr. Realejo Alto), ⊕ *Parietaria arborea*, 7. V, excl. 11–12. VI. 1907 (*Wlsm.*).

Cosmopteryx turbidella feeds on *Parietaria vulgaris*, near Guimar, in great abundance; it was found there by Mr. Eaton, who also observed the larvae where I have taken and bred it. An intimate acquaintance with the form of the mine caused me to suspect that a large, broad-leaved, shrub growing in the Barranco del Loro, above Realejo Alto, was *Parietaria arborea*; and this turned out to be correct.

C. turbidella Rbl. differs from *pulcherrimella* Chmb. in the possession of a black dot, a little above the middle of the wing, contiguous to the golden metallic band which precedes the yellow fascia; also in having the silver apical streak undivided, whereas in *pulcherrimella* it is broken into two short lines; moreover, the outer golden fascia does not commence in a pure white costal spot, as in the somewhat smaller American species. After re-

examining my series of *pulcherrimella*, collected in Madeira by Wollaston, with the addition of specimens subsequently received from Eaton, and my own from Tenerife, I am surprised to find that there is not a specimen of *turbidella* from Madeira. Mr. Eaton notes (MS., 16. IV. 1904) that "The *Cosmopteryx* so common at Guimar, and Puerto (de la Cruz) Orotava [i. e. *turbidella* Rbl.], was also plentiful on *Parietaria*, at Funchal, in the garden of the Carmo Hotel"; but his specimens of *pulcherrimella* were taken at "Funchal: at altitude of about 600 ft., 26. II. 1902: out of *Eupatorium adenophorum* Spreng.," one of the *Compositae*. This plant should be searched, but it is not a probable food-plant for *pulcherrimella* Chmb., which in the United States feeds on *Pilea pumila*, one of the *Urticaceae*.

Cosmopteryx turbidella is by no means consistent in the colour of the yellow fascia; this, in some specimens, is almost obsolete through the strength of the brownish suffusion; in others the colour is only slightly influenced in tone, while rarely it is of a clear orange-yellow, without partial shading or suffusion. I have again carefully compared all the specimens, without being able to detect any difference between the American and Madeiran specimens of *pulcherrimella*.

37. (405) STAGMATOPHORA HS.

78. (3564) Stagmatophora (Pyroderces) argyrogrammos Z.

Cosmopteryx argyrogrammos Z. Isis **1847**. 37–8 no. 177[1]. *Pyroderces argyrogrammos* Cnst. Ann. Soc. Ent. Fr. LII. 20 (1883)[2]; Rbl. Ann. KK. Hofmus. XI. 132, 147 no. 207 (1896)[3]: XXI. 44 no. 233 (1906)[4]: Stgr-Rbl. Cat. Lp. Pal. II. 185 no. 3564 (1901)[4].

Hab. WC. ASIA[1, 5]—Haleb: Shar Devesy, 1893 (*Nat. Coll.*: *Leech*). S-MC. EUROPE[1–5]—Italy: Rome, 10–25. IV. 1893 (*Wlsm.*)—Corsica: Corté, 19–21. V. 1896; Ile Rousse, 5. VI. 1898; Ajaccio, 16. VI. 1899 (*Wlsm.*)—France: ⊕ Compositae —*Carlina corymbosa*, *Kentrophyllum lanatum*, *Centaurea aspera*, *Pycnomon acarna*, *etc.*[2]; Monte Carlo, 5. V. 1882 (*Wlsm.*); Beaulieu, ⊕ *Carduus*, excl. 12. VII. 1889 (*Wlsm.*)—S. Spain: malaga: Malaga, 14. III. 1901: granada: Granada, 22. V–20. VI. 1901: cadiz: Chiclana, ⊕ *Centaurea*, excl. 10. VI. 1902 (*Wlsm.*). N. AFRICA[5]—Algeria: Bône, 21. IV. 1896 (*Eaton*)—Morocco: Tangier, IV. 1902 (*Wlsm.*); Rabat, IV. 1902 (*Wlsm.*). Canaries[3–4]—Tenerife[3–4]: Guimar, III[e]. 1907 (*White*); Puerto Orotava, 14. IV. 1895 (*Hedemann*)[3]; La Laguna, 5. VI. 1907 (*Wlsm.*).

Mr. White took a good specimen of this at Guimar, when collecting with me, at the end of March; I subsequently met with a worn example, at La Laguna, in June.

38. (417) APHELOSETIA Stph.

=**Elachista* (Tr. p.) Z., Stn., Stgr-Rbl., etc.

Type *Phalaena Tinea argentella* Cl. (Wstwd. 1840).

Aphelosetia Stph. Ill. Br. Ent. Haust. IV. 287 (1834); Wstwd. Syn. Gn. Br. Ins. 112–3 (1840).
Elachista Tr. (c. Elachista) Z. Isis **1839**. 211, 212–3.

When describing *Elachista*, Treitschke [Schm. Eur. IX. (2). 177 (1833)] wrote as part of his generic diagnosis: "Die Raupen leben auf der Unterseite der Baumblätter oder minirend zwischen den Häuten derselben. Sie verpuppen sich in festen Hülsen." This restricted the possible type to species with such larval habits (i. e. *Bucculatrix* Z. and *Phyllonorycter* Hb.) with whose life-history Treitschke was acquainted, and rendered it impossible for any of the grass-mining species (*Elachista* Auct.) to be regarded as a potential type. Treitschke quotes the life-history of *Bucculatrix frangulella* Göze and *Phyllonorycter* (*Lithocolletis*) *tremulae* Z. from Fischer von Röslerstamm (*in litt.*), but he was personally acquainted with the larvae of *ulmifoliella* Hb. and *blancardella* (F., *mespilella* Hb. 272) Tr. *Elachista* Tr. must therefore sink as a synonym of *Phyllonorycter* Hb., and *ulmifoliella* Hb. should be taken as the type. Duponchel [HN. Lp. Fr. XI. 25, 499–502 no. 30 (1836)] cited *complanella* Hb. as the type of *Elachista* Tr., but Treitschke was unacquainted with the larva of *complanella*, and this species is not indicated as specially typical. Zeller's restriction to the grass-feeding species is also invalid for the same reason.

79. (3994·1) Aphelosetia hypoleuca, sp. n.
(Plate LII. fig. 11.)

Antennae fuscous, the basal joint pale ochreous. *Palpi* whitish ochreous. *Head* and *Thorax* whitish ochreous, the latter faintly shaded with fawn-grey. *Forewings* pale ochreous (whitish ochreous if worn), sprinkled and suffused with fawn-brown, especially above the fold beyond the middle, with some deeper brownish fuscous shades, notably along the costa and about the tornus; three black spots, one below the costa at two-thirds; a smaller one, a little beyond and below it, about the end of the cell; a third, more conspicuous, on the fold at about half the wing-length; a strong blackish shade-line runs along the middle of the brownish ochreous cilia. *Exp. al.* 8–9·5 mm. *Hindwings* rather dark leaden grey; cilia tawny greyish. *Abdomen* grey, anal tuft ochreous. *Legs* pale brownish ochreous, shaded with fuscous externally.

Type ♂ (99036); ♀ (14312) Mus. Wlsm.

Hab. Tenerife: Forest de la Mina, 17. III. 1902, 7. IV. 1904 (*Eaton*); Realejo, 7–10. V. 1907 (*Wlsm.*); Puerto Orotava,

14. V. 1907 (*Wlsm.*); La Laguna, 23. V. 1907 (*Wlsm.*); Las Mercedes, 29. V. 1907 (*Wlsm.*). Nineteen specimens.

Not uncommon, on the higher ground, in the barranco above Realejo and elsewhere; first taken by Mr. Eaton, in the forest of La Mina. It is very near to *albidella* Tngstr. (1847; =*rhynchosporella* Stn., 1848), but differs in the possession of two extra spots beyond the conspicuous plical one: the European species having no spot at the end of the cell or below the costa. Vein 5 is absent in both wings.

39. (417·01) POLYMETIS, gn. n.

(πολύμητις=of-many-counsels.)

Type *Polymetis carlinella* Wlsm.

Antennae ¾, slightly serrate towards apex; basal joint with strong pecten. *Maxillary Palpi* short. *Labial Palpi* smooth, usually dependent, but capable of upward movement; terminal joint shorter than median, rather obtusely pointed. *Haustellum* small. *Head* and face coarsely, almost roughly, scaled. *Thorax* smooth. *Forewings* evenly lanceolate: *neuration* 12 veins; 7 and 8 stalked, 7 to costa; 6 out of 7, to termen; 5 out of stalk of (6+7+8); rest remote, 3 slightly approximate to 4; 1ᵉ distinct, 1 furcate at base. *Hindwings* nearly ⅔, tapering evenly to an acute apex; cilia 2–2½: *neuration* 7 veins, 5 and 4 coincident; 6 and 7 stalked, enclosing apex; 2 remote from 3, which is somewhat approximate to (4+5); above 5 the discoidal recedes to radius. *Abdomen* smooth. *Legs*, hind tibiae hairy.

Almost corresponding in neuration with some species of *Aphelosetia* Steph. and *Staymatophora* HS.; separated from the former by the basal furcation of vein 1 of the forewings, as well as by the shorter and less recurved palpi, and from the latter by the same characters, and by the coincidence of veins 5 and 4 of the hindwings. The habits of the larva afford additional reason for separating *Polymetis* from *Aphelosetia* (*Elachista* Auct.), of which the larvae of all known species feed on the *Gramineae*, or *Cyperaceae*.

80. (3920·1) Polymetis carlinella, sp. n.

(Plate LII. fig. 13.)

Antennae and *Palpi* whitish cinereous. *Head* white. *Thorax* whitish cinereous. *Forewings* white, profusely and evenly dusted throughout with pale greyish brown scales; the outer half of the cilia whitish cinereous. *Exp. al.* 10–11 mm. *Hindwings* grey; cilia pale brownish cinereous. *Abdomen* greyish. *Legs* whitish, with faint greyish shade-bands on their outer sides.

Type ♂ (99037); ♀ (99038) Mus. Wlsm.

Hab. Tenerife—Tacaronte, and Guimar, ⊕ **sup.** *Carlina salicifolia*, 19. II – III, excl. 13. III – 23. IV. 1907; Puerto Orotava, 27. IV. 1907. Eight specimens.

The larva feeds in mines, reminding one of those of the bramble-feeding *Tischeria marginea* Hw. on the upper surface of leaves of *Carlina salicifolia*. I found it near Tacaronte, at Guimar, and near Orotava—seven specimens were bred and one captured.

40. (274·1) MENDESIA Joannis.

Mendesia Joann. Bull. Soc. Ent. Fr. LXXI: **1902**. 230–1 (1902); Mendes Brotéria III. 249–51 (1904).

81. (2343·2) Mendesia symphytella, sp. n. (Plate LII. fig. 14.)

Antennae brownish fuscous; basal joint white, with strong pecten. *Palpi* slightly recurved, white; terminal joint less clothed, and therefore apparently rather more slender than median. *Head* coarsely scaled above; white. *Thorax* smooth, white. *Forewings* white, sparsely dusted with brownish scales; a brown spot in the fold at about half the wing-length, and another at the end of the cell; a brown streak along the termen, running out through the white apical cilia; cilia white, very sparsely dusted with brown along their base. *Exp. al.* 12–14 mm. *Hindwings* of the ♂ white; of the ♀ inclining to greyish; cilia of both sexes yellowish white. *Abdomen* greyish fuscous, except along the margins of the segments. *Legs* white; hind tibiae with long white hairs.

Type ♀ (99045); ♂ (99046) Mus. Wlsm.

Hab. Tenerife: Santa Cruz, 12. I – 10. II. 1907, ⊕*Symphytum sp.*, 7–25. I, excl. 25. I – 20. II. 1907 (*Wlsm.*); Forest de la Mina, 17. III. 1902 (*Eaton*); Guimar, 19. III – 10. IV. 1907 (*Wlsm.*); La Laguna, 1–6. IV. 1904 (*Eaton*). Thirty-three specimens.

Twelve specimens were bred from larvae, found at Guimar, mining leaves of *Symphytum*; the mine almost undistinguishable from that of *Acrocercops scalariella* Z., but the pupa enveloped in a white, silken, rather flat, ovate cocoon. Mr. Eaton caught a single specimen of this species in the Forest de la Mina, in 1902; in 1904 he met with it again, at La Laguna, and I took it on the wing at Santa Cruz and Guimar.

41. (415) PERITTIA Stn.

82. (3919·2) Peritia cedronellae, sp. n. (Plate LII. fig. 12.)

Antennae tawny fuscous above, pale cinereous beneath; a pale spot at the outer end of the short, and rather thickened, basal joint. *Palpi* slender, drooping; tawny fuscous. *Head* dull yellowish white, the face shaded with fuscous. *Thorax* tawny fuscous. *Forewings* tawny fuscous, with some faint pale sprinkling; an oblique yellowish white dorsal streak, arising at

about one-fourth, extends across the fold to the cell; beyond the middle of the dorsum is another, yellowish white, upright streak, broad at its base, slightly inverted, and attenuate to its apex on the cell; this is succeeded by an ill-defined, and much diffused, streak along the termen; a dark fuscous line runs through the tawny greyish cilia, falsely indicating a tornus, more defined than in the wing itself. *Exp. al.* 6·5–7 mm. *Hindwings* dark grey; cilia tawny greyish. *Abdomen* greyish fuscous. *Legs* yellowish white, broadly banded on tibiae and tarsi with dark tawny fuscous.

Type ♂ (99047); ♀ (99048) Mus. Wlsm.

Hab. Tenerife: Santa Cruz, 3000 ft., ⊕ *Cedronella triphylla*, 3. I, excl. 24. I – 1. II. 1907 (*Wlsm.*); Puerto Orotava, 10. III. 1904 (*Eaton*); Cruz de Afur, 10. III. 1904 (*Eaton*). Fifteen specimens.

The larva feeds, in December and January, in a broad blotch-mine, on leaves of *Cedronella triphylla*, and is abundant at the head of the Barranco del Bufadero, near Santa Cruz, and probably on all the high ground, where this plant occurs, along the outskirts of the forests of *Erica arborea*. Mr. Eaton met with the species near the same locality, in 1904, and also in the Barranco Martianez, Puerto Orotava.

The Tenerife species of *Perittia*, here described, have the palpi slightly longer than those of *obscurepunctella* Stn., but this slight difference is not of generic value.

83. (3919·3) Perittia lavandulae, sp. n.

Antennae fuscous. *Palpi* fuscous, tipped with whitish. *Head* hoary whitish, with fuscous speckling. *Thorax* fuscous, with some whitish scales on the tegulae. *Forewings* dark fuscous, profusely sprinkled with rather yellowish white scales, by concentration of which the dorsal streak arises at one-fourth, pointing outward, and diffused upward to the costa; a larger, upright, streak arises before the tornus and extends nearly to the costa, a further patch spreading over the upper half of the termen and apex; a line of dark fuscous scales runs through the greyish fuscous cilia. *Exp. al.* 4·5–6 mm. *Hindwings* and cilia greyish fuscous. *Abdomen* dark fuscous. *Legs* whitish, broadly banded with dark tawny fuscous on the tibiae and tarsi.

Type ♂ (99071); ♀ (99072) Mus. Wlsm.

Hab. Tenerife: Santa Cruz, 14. I – 21. II. 1907, ⊕ *Lavandula abrotanoides*, 20. I – 22. II, excl. 13. II – 28. III. 1907; Guimar, 28. II. 1907; La Laguna, ⊕ *Lavandula staechas*, 3. VI, excl. 19. VII. 1907. Thirty-six specimens.

The larva is common, at Santa Cruz, on *Lavandula abrotanoides*, hollowing out the ends of the slender leaflets, and leaving them bleached, when passing from one to another (after the manner of the larvae of *Epermenia* on *Umbelliferae*); it also feeds on *Lavandula staechas*.

It is extremely difficult to describe the differences between this species and *cedronellae*: its smaller size, more sprinkled appearance, and slightly yellower-white markings may alone be relied on to separate them.

I have, what I believe to be, yet a third, intermediate, species of *Perittia*, (**bystropogonis**), from Guimar, feeding on *Bystropogon plumosus*, in March, and emerging towards the end of April.

Hab. Tenerife: Guimar, ⊕ *Bystropogon plumosus*, 27. III, excl. 21–26. IV. 1907. Six specimens (99076–81).

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42. (384) SCYTHRIS Hb.

84. (3478·02) Scythris arachnodes, sp. n. (Plate LII. fig. 16.)

Antennae black. *Palpi* slender, porrect; hoary greyish, mixed with black. *Head* and *Thorax* black; face greyish. *Forewings* short, obtusely lanceolate; black, a few greyish white scales at the base, and two transverse bands of the same, one before, the other beyond the middle; the first narrower than the second, and running a little obliquely outward from the costa; the second moderately straight, both being ill-defined, with a few scattered whitish scales between them, others forming a patch at the apex; cilia greyish fuscous. *Exp. al.* 7–10 mm. *Hindwings* dark leaden grey; cilia greyish fuscous. *Abdomen* steely grey. *Legs* greyish fuscous, the tarsi shaded with black.

Type ♂ (99082); ♀ (99083); ⊕ (99084) Mus. Wlsm.

Hab. Tenerife: Santa Cruz, 12–20. II. 1907 (*Wlsm.*), 4. IV. 1904 (*Eaton*), ⊕ in webs on rocks, 6. I, excl. 15. II – 28. III. 1907 (*Wlsm.*); Cruz de Afur, 5. IV. 1904 (*Eaton*); Guimar, ⊕ in webs on rocks, 1. III – 4. IV, excl. 11. VIII. 1907 (*Wlsm.*). Twenty-seven specimens.

The larva feeds, probably on small lichens, on the surface of rocks, and rough stones in walls, and is very widely distributed in the Island, where its webs are to be seen forming numerous small patches on the face of almost every rock by the roadside. They have the appearance of rather opaque spiders' webs, and as they endure long after the moth has left them they are much more numerous than the larvae themselves. Nearly allied to *bubaniae* Wlsm. [Ent. Mo. Mag. XLI. 6–7 no. 3478·1 (1907)], but smaller, and the fasciae are much more distinct.

85. (3533·1) Scythris petrella, sp. n. (Plate LII. fig. 17.)

Antennae greyish fuscous. *Palpi* slender, porrect; ash-grey. *Head* and *Thorax* ashy grey. *Forewings* greyish fuscous, mottled with ashy white, the base sprinkled with ashy white scales; an outwardly angulate, ill-defined fascia at two-fifths, followed by more sprinkled scales, especially towards the costa, the whole

outer third of the wing mottled with the same, a spot at the end of the cell, a costal patch before the apex, and a streak along the termen being of the plain dark ground-colour; cilia ashy greyish. *Exp. al.* 8–9 mm. *Hindwings* grey; cilia brownish grey. *Abdomen* fuscous. *Legs* pale ashy grey.

Type ♂ (99085) ♀ (99086) Mus. Wlsm.

Hab. TENERIFE: Puerto Orotava, 23–30. IV. 1907; Las Mercedes, 29. V. 1907; La Laguna, 5. VI. 1907. Twelve specimens.

The distribution of the ashy white scaling varies considerably, and in some specimens occupies a much larger proportion of the wing-surface than in others. It appears to be more variable than the larger, and perhaps allied, *cicadella* Z., and is paler and less uniform in its ill-defined marking than *arachnodes*.

86. (3536) SCYTHRIS FASCIATELLA Rgt. (Plate LII. fig. 15.)

=**roscidella* Rbl. (nec Z.).

Butalis fasciatella Rgt. Bull. Soc. Ent. Fr. XLIX. (5 s. X: **1880**). pp. cxxi–ii (1881)[1]. **Blastobasis* **roscidella* Rbl. Ann. KK. Hofmus. IX. 18, 90 no. 177 (1894)[2]: XXI. 44 no. 219 (1906)[3]. *Butalis fasciatella* Sbld. Deutsche Ent. Zts. Iris XI. 319 (1898)[4]. *Scythris fasciatella* Stgr-Rbl. Cat. Lp. Pal. II. 183 no. 3536 (1901)[5].

Antennae cinereous beneath, fuscous above. *Palpi* whitish cinereous. *Head* and *Thorax* pale cinereous, a brownish band crossing the latter, including the outer part of the tegulae. *Forewings* hoary whitish, dusted with fuscous and pale rust-brown scales; a much sprinkled basal patch, extending to one-third, is obliquely margined outwardly by a band of the pale ground-colour, the sprinkling being condensed in a small costal spot near the base, and in a costal shade a little beyond this—both accompanied by rust-brown; an oblique fuscous fascia, about the middle, is shaded with rust-brown along its ill-defined outer side and on the costa, the paler apical area beyond it much sprinkled and mottled with the same colours, in which a fuscous, condensed, spot above the tornus is distinguishable; cilia greyish fuscous, with some hoary scales. *Exp. al.* 10·5–11 mm. *Hindwings* brownish grey; cilia pale greyish fuscous. *Legs* hoary whitish, the hind tibiae with two greyish fuscous bands across their outer sides; the hind tarsi also suffused with fuscous externally.

CT. ♂ (99087); ♀ (99088); ⊕ (99089) Mus. Wlsm.

Larva brownish grey; head pale brownish; a pale, ill-defined, dorsal line, interrupted by brownish fuscous spots on each of the abdominal somites; all the somites laterally shaded with brownish fuscous, and stippled with minute pale ocellated dots; underside, up to the spiracular line, pale whitish ochreous; thoracic legs dotted with fuscous. *Long.* 12 mm.

Hab. SPAIN[1, 4–5]: VALENCIA: Alicante, ⊕ . . . ? . . . , excl. 15. XI. 1879 (*Rgt.*)[1]: ANDALUSIA[4–5]: III[4]. **Canaries**[2–3]—TENERIFE: IV. 1885 (*Leech*)[2]; Puerto Orotava, 26. IV – 10. V. 1907 (*Wlsm.*),

⊕ *Salsola oppositifolia*, 27. IV, excl. 19. V – 2. VI. 1907 (*Wlsm.*), ⊕ *Atriplex parvifolius*, 10. V, excl. 3. VI. 1907 (*Wlsm.*).

When describing *fasciatella*, Ragonot states that he took and bred several specimens, but omits to mention the food-plant. I found this species on the wing, and the larva feeding among shoots of *Salsola oppositifolia*, and on *Atriplex parvifolius* in a slight web, in April and May; the moths emerged in May and June. This is the species wrongly identified by Rebel as "*Blastobasis roscidella Z.*", which, apart from the generic differences, it does not greatly resemble. I fear the specimen I sent him must have been a very poor one. The type of *Blastobasis roscidella* is in the Zeller Collection, and I have also a Cotype of *Butalis fasciatella* received from the late M. E. Ragonot.

43. (383) EPERMENIA Hb.

87. (3413) Epermenia daucella Peyr.

Chaulicodus daucellus Peyr. Pet. Nouv. Ent. I. 57–8 (1870)[1]; Hrtm. MT. Münch. Ent. Ver. IV. 44 no. 2564 (1880)[2]; Wlsm. Ent. Mo. Mag. XXVII. 147 (1891)[3]: Tr. Ent. Soc. Lond. **1894**. 538, 554 no. 59 (1894)[4]. *Epermenia daucella* Stgr-Rbl. Cat. Lp. Pal. II. 179 no. 3413 (1901)[5].

Hab. S. EUROPE: *Daucus carota*[1-2]; *Thapsia villosa*[3]—Gibraltar, ⊕ *Thapsia*, III, excl. 7. IV – 21. V. 1901 (*Wlsm.*). N. AFRICA — Morocco: Tangier, 30. I. 1902 (*Wlsm.*). **Madeiras**[4]—Madeira[4]: (*Wollaston*)[4]. **Canaries**—Tenerife: La Laguna, 31. V. 1907 (*Wlsm.*).

A single specimen occurred at La Laguna, at the end of May: this species had already been recorded by me from Madeira, but had not been observed in Tenerife.

44. (283) PRAYS Hb.

88. (2382) Prays citri Mill.

Acrolepia citri Mill. Pet. Nouv. Ent. I. 310 (1873)[1]. *Prays citri* Stgr-Rbl. Cat. Lp. Pal. II. 133 no. 2382 (1901)[2]: Rbl. Ann. KK. Hofmus. XXI. 38, 44 no. 206 (1906)[3].

Hab. Corsica[1-3]—Sicily[1-3]—S. France[3]: ⊕ *Citrus decumana*[3]. **Canaries**[3]—Tenerife[3]: Guimar, 1896 (*White*)[3]; Puerto Orotava, 10. III. 1904 (*Eaton*).

Mr. Eaton took a single specimen, at light in the hotel, in March 1904: I did not myself meet with this species.

45. (281) HYPONOMEUTA Ltr.

89. (2361) Hyponomeuta gigas Rbl.

Hyponomeuta gigas Rbl. Ann. KK. Hofmus. VII. 271–2, 283 no. 52, Pl. **17** · 17 ♂ (1892)[1]: IX. 18, 89 no. 166 (1894)[2]: XI.

126–7, 146 no. 185 (1896)[3]: XIII. 377, 381 no. 199 (1898)[4]. *Yponomeuta gigas* Rbl. Ann. KK. Hofmus. XXI. 44 no. 205 (1906)[5]: Stgr-Rbl. Cat. Lp. Pal. II. 132 no. 2361 (1901)[6].

Hab. **Canaries**[1–6]—TENERIFE[2–6]: Realejo, ⊕ *Salix canariensis*, 25. IV, excl. V – VI. 1895 (*Hedemann*)[3], ⊕ 25. IV – 7. V, excl. 10. V – 2. VI. 1907 (*Wlsm.*); La Laguna, ⊕ *Populus alba*, 21. V, excl. 30. V. 1907 (*Wlsm.*); Santa Cruz, 1. VI. 1889 (*Krauss*)[2]—GRAN CANARIA[1–6]: 1890 (*Richter*)[1]; ⊕ *Salix*, *Populus*, *Ocotea* (*Oreodaphne*) *foetens*, excl. 29. IV – 25. V. 1893 (*Lowe*); nr. Teror, ⊕ *Populus*, excl. 10. V. 1895 (*Hedemann*)[3]; Santa Brigida, ⊕ *Salix canariensis*, excl. IV^{e} – V^{b}. 1898 (*Hintz*)[4].

Many years ago I received a considerable number of larvae of this species from Dr. John Lowe, who wrote as follows:—

"The larvae occur in countless myriads on the Willow, Poplar, and 'Till' trees (Laurel: *Oreodaphne foetens*). They spin a fine silken web over the entire tree, even to its ultimate branches, which makes them look white and silvery. The underwood and stones at the base are also covered with the silk tissue, which is so closely woven that there are no visible openings. I was able to strip off pieces five or six feet in length." . . . . . "It is just possible that there may be more than one species, but I am doubtful about this. If it is so one will be found in the box, with a pin through it, which I took from *Salix*—the rest were from *Oreodaphne*. I am sending you some of the silk, which is most remarkable. The brushwood under the trees was completely covered by it, also the grasses and large stones. The tree-trunks were so closely covered that one could not see even a pinhole on the smooth trunks of the 'Till'—every branch was covered, and scarcely a leaf remained on any of the infested trees, which were 60 or 70 ft. high. At the base of the trunks the appearance of the web was most singular—large reticulations, like pulmonary cells, seemed to open one into the other, but on closer examination the apparent openings were found to be closed by a membrane of perfect continuity, but so transparent that until something was passed through it one could not perceive that it existed." (Dr. Lowe, *in litt.*, 29. IV., 20.V. 1893.)

I first met with *Hyponomeuta gigas* on three large trees of *Salix canariensis*, at the first branching of the large barranco above Realejo Alto: the ends of the branches were entirely covered with the colonies of larvae, in dense web, having a seriously denuding effect upon the foliage. Subsequently I found it, in less abundance, on *Populus alba*, in the Eucalyptus avenue, running north-east from La Laguna. There is no difference between the specimens reared from *Salix* and *Populus* respectively; the larvae also were undistinguishable. Rebel originally described *gigas* (*l. c.* **1**) as sexually dimorphic, having "alis plumbeis, anterioribus ♂ punctis nigris triseriatis, ♀ innotatis"; subsequently, however, he came to the conclusion that both sexes occurred in both forms, and that the spotless form was characteristic of Gran Canaria, appearing

only as an aberration in Tenerife. It may be convenient to name the spotless form **innotata**, var. n., and then to enumerate in series each variety as represented in my collection.

I have 129 (=*gigas* 93+36 *innotata*) specimens, of which 103 (=*gigas* 91+12 *innotata*) are from Tenerife, and 26 (=*gigas* 2+24 *innotata*) are from Gran Canaria. The series of 103 specimens from Tenerife is composed of 91 (=66 ♂ ♂ +25 ♀ ♀) *gigas*, of which 55 (=42 ♂ ♂ +13 ♀ ♀) were bred from *Populus alba*, and 36 (=24 ♂ ♂ +12 ♀ ♀) were bred from *Salix canariensis*; and 12 (6 ♂ ♂ +6 ♀ ♀) *innotata*, 8 (=4 ♂ ♂ +4 ♀ ♀) of which were bred from *Populus* and 4 (=2 ♂ ♂ +2 ♀ ♀) from *Salix*.

The 26 (=9 ♂ ♂ +17 ♀ ♀) specimens from Gran Canaria were bred by Dr. Lowe from *Ocotea foetens*; 24 (9 ♂ ♂ +15 ♀ ♀) are *innotata*, while 2 (♀ ♀) are *gigas*.

46. (424) PHYLLONORYCTER Hb.

=*Lithocolletis* Hb.; =Eucestis Hb.; =Elachista Tr. (nec*Z.).

(φύλλον=a leaf; ὀρυκτὴρ=a miner.)

Type *Phalaena Tinea rayella* L., Hb. 200.

Phyllonorycter Hb. Tent. p. [2] (1806). Lithocolletis Hb. Verz. Schm. 423 no. 4117–20 (1826); Stgr-Rbl. Cat. Lp. Pal. II. 210–16 (1901); Dyar Bull. US. Nat. Mus. **52**. 549–57 (1902); Meyr. Pr. Lin. Soc. NSW. XXXII. 49, 51–2 (1907); etc.

Lithocolletis Hb. is a synonym of *Phyllonorycter* Hb., the type of both being *rajella* Hb. Tin. Pl. **29**· 200.

⊂ 90. (4113) Phyllonorycter helianthemellus HS.

Lithocolletis helianthemella HS. Neue Schm. 20 no. 89, Pl. **18**· 115 (1860)[1]; Stgr-Rbl. Cat. Lp. Pal. II. 211 no. 4113 (1901)[2].

Hab. WC. ASIA[2]. C–S. EUROPE: ⊕ **inf.** *Helianthemum vulgare*, *guttatum*[1–2]. **Canaries**—Tenerife: Guimar, 25. II – 10. IV. 1907 (*Wlsm.*).

Taken at Guimar: the larvae observed on *Cistus monspeliensis*.

91. (4165) Phyllonorycter messaniellus Z.

Lithocolletis messaniella Z. Lin. Ent. I. 221–2 no. 21. Pl. **1**· 23 (1846)[1]; Wlsm. Tr. Ent. Soc. Lond. **1894**. 538, 555 no. 65 (1894)[2]; Stgr-Rbl. Cat. Lp. Pal. II. 214 no. 4165 (1901)[3].

Hab. WC. ASIA[3]. WC–S. EUROPE[1–3]; ⊕ **inf.** *Quercus*, *Castanea*, *Carpinus*[3]—Italy: Rome, 10–25, IV. 1893 (*Wlsm.*)—Spain: malaga: Malaga, 17. III. 1901 (*Wlsm.*). N. AFRICA—Morocco: Tangier, ⊕ **inf.** *Quercus suber*, XII, excl. 25. I – 11. III. 1902 (*Wlsm.*). **Madeiras**[2]—Madeira[2]: (*Wollaston*)[2]. **Canaries**—Tenerife: La Laguna, ⊕ **inf.** *Quercus suber*, 13. I, excl. 17–30. I. 1907 (*Wlsm.*), 14. III. 1902 (*Eaton*), ⊕ **inf.** *Quercus sp.* (*decid.*), 23. V, excl. 4. VI. 1907 (*Wlsm.*); Guimar, 25. II. 1907 (*Wlsm.*).

First received from Mr. Eaton: I found it in great abundance at La Laguna and Guimar, on *Quercus suber*—also on a deciduous oak at the former place.

92. (4166) PHYLLONORYCTER PLATANI Stgr.

Lithocolletis platani Stgr. Hor. Soc. Ent. Ross. VII. 277–9, Pl. 3 · 18 (1870)[1]; Stgr-Rbl. Cat. Lp. Pal. II. 214. no. 4166 (1901)[2].

Hab. WC. ASIA[2]. S. EUROPE: ⊕ inf. *Platanus orientalis*[1-2] —SPAIN: MALAGA: Malaga, 17. III. 1901 (*Wlsm.*). Canaries—TENERIFE: Santa Cruz, 8. I – 11. II. 1907, ⊕ inf. *Platanus orientalis*, 1. I, excl. 14–20. II. 1907 (*Wlsm.*).

Extremely abundant at Santa Cruz: the fallen leaves were crowded with mines at Xmas, 1906.

93. (4180) PHYLLONORYCTER CYTISELLLUS Rbl.

Lithocolletis cytisella Rbl. Ann. KK. Hofmus. XI. 140–1, 147 no. 217. Pl. 3 · 17–17ª (1896)[1]: XXI. 44 no. 242 (1906)[2]: Stgr-Rbl. Cat. Lp. Pal. II. 215 no. 4180 (1901)[3].

Hab. TENERIFE[1-3]: La Laguna, ⊕ *Cytisus proliferus*, 13. I, excl. 16. I – 8. II. 1907 (*Wlsm.*); Guimar, ⊕ *Cytisus proliferus*, 26. II, excl. 3–25. III. 1907, 7. IV. 1907 (*Wlsm.*); Puerto Orotava, 11–26. IV. 1895 (*Hedemann*)[1], 9. V. 1907 (*Wlsm.*); Las Mercedes, 29. V. 1907 (*Wlsm.*).

Common: a long series taken among, and bred from, *Cytisus proliferus*. It is very variable, some forms approaching *juncei*.

94. (4180·1) PHYLLONORYCTER JUNCEI, sp. n.

Antennae and *Palpi* white. *Head* white, mixed with golden brownish. *Thorax* golden brownish, with white streaks at the sides, and posteriorly. *Forewings* shining, golden brown, with five costal, and two dorsal, white streaks, more or less plainly indicated; the first costal is at about half the wing-length, and further removed from the second than the others are from each other; the first dorsal is larger than the first costal, commencing before it, but approaching it at its apex; the second dorsal is opposite to the second costal; there is also a white basal streak, sometimes produced as far as the first pair, and partially connected with a small white dorsal streak; the outer half of the wing is thickly studded with black scales, which tend to form dark inner margins to the first and second costal, and to the second dorsal streaks, also an outer margin to the inverted costal streak before the apex; there is a conspicuous, elongate patch of similar black scales, also before the middle, forming an inner margin to the first dorsal streak; terminal cilia golden brown at their base, with a dark line dividing this from their paler outer ends. *Exp. al.* 7·5–9 mm. *Hindwings* pale grey; cilia pale brownish grey. *Abdomen* greyish. *Legs* white.

Type ♀ (99090); ♂ (99091) Mus. Wlsm.

Hab. Tenerife: Villa Orotava, 6. V. 1907; Puerto Orotava, ⊕ *Genista stenopetala*, 8. V, excl. 13–16. V. 1907; La Laguna, ⊕ *Spartium junceum*, 21. V, excl. 23. V – 6. VI. 1907. Seventy-eight specimens.

This is apparently allied to *cytisellus* Rbl., and, like it, is also very variable in the intensity of its markings, which in some specimens are more or less evanescent, but, whereas in *cytisellus* the white so strongly predominates as to overrun the wing and leave golden markings, in *juncei* the golden ground predominates, leaving white markings. I have a long series of bred specimens of both species, and can never be at a loss to distinguish them.

I first found *juncei* in the garden behind the Hotel Vittoria, Villa Orotava, flying freely about *Genista stenopetala*, and afterwards bred it from leaves of the same, gathered at Puerto Orotava; but it was even more abundant on *Spartium junceum*, by the side of the road from La Laguna to Tegeste, where, in one spot only, for about 100 yards, almost every leaf of these plants was affected by the larvae. The species is described from specimens bred from *Spartium junceum*.

95. (4207·1) Phyllonorycter foliolosi, sp. n.
(Plate LIII. fig. 8.)

Antennae white, with blackish annulations. *Palpi* white. *Head* and *Thorax* pale golden brown. *Forewings* pale golden brown, with four costal and three, or four, more obscure, white dorsal streaks; the first two pairs opposite, and frequently appearing as two fasciae by meeting each other, a slender whitish streak sometimes connecting them along the middle; between the white streaklets, as well as towards the base, the wing is plentifully bestrewn with minute black scale-points; cilia mixed golden and whitish, becoming greyish along the dorsum. *Exp. al.* 4–5·5 mm. *Hindwings* and cilia pale grey. *Abdomen* grey, anal tuft ochreous. *Legs* yellowish white.

Type ♂ (99092); ♀ (99093) Mus. Wlsm.

Hab. Tenerife: Guimar, 25. II – 6. III. 1907, ⊕ *Adenocarpus foliolosus*, 26. II, excl. 1–10. III. 1907 (*Wlsm.*); La Laguna, 25. III. 1904 (*Eaton*), 23. V – 9. VI. 1907, ⊕ *Genista canariensis*, 18. V, excl. 5–15. VI. 1907 (*Wlsm.*). Fifty-three specimens.

The larva feeds in the tiny leaflets of *Adenocarpus foliolosus*, at Guimar, at about 2000 ft. above sea-level, sometimes giving to the branches a whitened appearance, through the bleaching of innumerable leaves; I found the same species later, at La Laguna, on *Genista canariensis*, where Mr. Eaton had taken it in March 1904.

The species is allied to *parvifoliellus* Rgt., but differs in the more numerous costal streaks.

47. (420·01) ACROCERCOPS Wlgrn.

n. syn.=CONOPOMORPHA Meyr.; =DIALECTICA Wlsm.

Type 1. *Tinea brongniardella* F. (Wlgrn. 1881).

ACROCERCOPS Wlgrn. Ent. Tdsk. II. 95 (1881).

Type 2. *Conopomorpha cyanospila* Meyr. (Meyr. 1886).

CONOPOMORPHA Meyr. Tr. NZ. Inst. XVIII. 183 (1886): Pr. Lin. Soc. NSW. XXXII. 49, 54–61 no. 4 (1907).

Type 3. *Gracilaria scalariella* Z. (Wlsm. 1897).

DIALECTICA Wlsm. Pr. Z. Soc. Lond. **1897**. 150–1 no. 93.

In his recent paper [Pr. Lin. Soc. NSW. XXXII. 47–68 (1907)] Meyrick has removed the groups of *Gracilaria* and *Zelleria* from the *Tineidae* to the *Plutellidae*, assigning now "more importance to the smooth posterior tibiae which are a normal attribute of those two groups, than to the rough head which is a frequent characteristic. Moreover, whilst folded maxillary palpi are peculiarly characteristic of the *Tineidae*, the simple porrected maxillary palpi of the *Gracilaria* group are so similar to those of the *Plutella* group, and so different from those of any other *Tineina*, that they would seem to indicate real affinity." He concludes from his study of the *Gracilaria* group that "*Coriscium* Z. cannot be maintained as a distinct or natural genus, the scaling of the palpi being subject to much variation, and not according with true affinity. On the other hand," he has "found it practicable to use the scaling of the legs to break up the whole of the species thus thrown together into four groups which are both natural and strictly definable, and since the number of species known is already very large and destined to be much larger," he has "thought it conducive to clearness to establish them as genera." *Cyphosticha* Meyr. and *Conopomorpha* Meyr., having "Posterior tibiae with bristly hairs above," are separated from *Gracilaria* Hw. and *Macarostola* Meyr., with "Posterior tibiae smooth-scaled." *Dialectica* Wlsm. is sunk as a synonym of *Conopomorpha* Meyr.; but *brongniardellum* F. also has "Posterior tibiae bristly above [Meyr. HB. Br. Lp. 749 (1894)], for which reason Wallengren removed it from *Coriscium* Z., making it the type of ACROCERCOPS Wlgn. (1881), described as having "Tibiae postice setosae," and, consequently, *Conopomorpha* must also sink as a synonym.

96. (4082·1) ACROCERCOPS HEDEMANNI Rbl.

Gracilaria hedemanni Rbl. Ann. KK. Hofmus. XI. 136–7, 147 no. 211. Pl. 3· 15 ♂ (1896)[1]: XXI. 44 no. 239 (1906)[2]: Stgr-Rbl. Cat. Lp. Pal. II. 207 no. 4067 (1901)[3].

Hab. **Madeiras**—MADEIRA: The Curralhino, Funchal, 9. IV.

1902 (*Eaton*). Canaries [1-3]—Tenerife [1-3]: Guimar, 2. III. 1907 (*Wlsm.*); La Laguna, 17. III. 1902 (*Eaton*); Forest de la Mina, 2500–2800 ft., 7. IV. 1904 (*Eaton*); Puerto Orotava, 23. IV. 1907, ⊕ *Malva parviflora*, 23. IV, excl. 11-14. V. 1907 (*Wlsm.*); La Matanza, 2. V. 1895 (*Hedemann*)[1]; Las Mercedes, 29. V. 1907 (*Wlsm.*).

The publication of Prof. Rebel's figure of *hedemanni* prevented me from describing a very closely allied species, found at Tangier in 1901. I have now a considerable series of each, and am acquainted with their larvae. Both feed on species of *Malvaceae*, making conspicuous blotches on the upper sides of the leaves, and in both instances the larvae assume, before pupating, the beautiful transverse bands of scarlet, or rich carmine, so well known in *Acrocercops brongniardellum* F.

The Tenerife species is exceedingly common, feeding on *Malva parviflora* everywhere, and on *Lavatera arborea* in gardens, at Orotava and elsewhere. I have received *hedemanni* also from Funchal, Madeira (*Rev. A. E. Eaton*); there is no difference between the Tenerife and Madeira specimens.

(4082·2) Acrocercops malvacea, sp. n.

=**hedemanni* Wlsm. (nec Rbl.).

Dialectica sp. n. Wlsm. Ent. Mo. Mag. XXXVII. 236 (1901)[1]. *Gracilaria* **hedemanni* Wlsm. Ent. Mo. Mag. XXXIX. 181 (1903)[2].

Hab. Morocco: Tangier[1-2], ⊕ *Malva sp.*[1], *Lavatera olbia*[2], ⊕ [*Malva*? *sp.*?], XII, excl. 1–11. I. 1902, ⊕ 13. IV, excl. 29. IV – 9. V. 1901. Thirty-six specimens. *Type* ♂ (88655); ♀ (88669); ⊕ (88688) Mus. Wlsm.

When recording *Gracilaria hedemanni* from Morocco [Ent. Mo. Mag. XXXIX. 181 (1903)], I was somewhat misled by the absence of a pale basal patch in Rebel's figure. Such a patch is distinctly present in *hedemanni*, but barely traceable or entirely absent from the Tangier insect; moreover the dorsal spot beyond the central fascia is also absent from what I may now call **Acrocercops malvacea**, sp. n. There is also a slight difference in the larvae: in *malvacea* the scarlet transverse bands are shorter, extending less far laterally, and the head is brown—not blackish as in *hedemanni*. I recorded the food-plant as *Lavatera olbia* (Ent. Mo. Mag. XXXIX. 181), but I am unable now to verify this by reference to preserved specimens, which is to be regetted, as I had previously [Ent. Mo. Mag. XXXVII. 236 (1901)] thought the plant "a very large mallow". It was a tall *Malvaceous* plant, sometimes seven or eight feet high, with broad rounded leaves and white, or lilac, flowers.

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97. (4082·3) Acrocercops scalariella Z.

Gracilaria scalariella Z. Stett. Ent. Ztg. XI. 160–1 (1850)[1]; Hrtm. MT. Münch. Ent. Ver. IV. 35 no. 2351 (1880)[2]; Wlsm. Tr. Ent. Soc. Lond. **1894**. 538, 555 no. 64 (1894)[3]; Rbl. Ann. KK. Hofmus. IX. 18, 91 no. 181 (1894)[4]: XI. 137, 147 no. 212 (1896)[5]: XXI. 44 no. 240 (1906)[6]. *Dialectica scalariella* Wlsm. Pr. Z. Soc. Lond. **1897**. 150–1 (1897)[7]. *Gracilaria scalariella* Stgr-Rbl. Cat. Lp. Pal. II. 208 no. 4081 (1901)[8].

Hab. WC. ASIA[8]. S. EUROPE[1-8]: ⊕ *Echium vulgare*, X–XI, excl. IV–V[2]—Corsica: Posso di Borgo, 5. VI. 1889 (*Wlsm.*)

—S. FRANCE[8]: Mentone, ⊕ *Cynoglossum*, excl. 12. III. 1893 (*Wlsm.*); Cannes, ⊕ *Echium*, excl. IV. 1881 (*Wlsm.*); Monte Carlo, ⊕ *Echium*, excl. IV. 1881 (*Wlsm.*)—SPAIN[8]: MALAGA: El-Chorro, ⊕ *Echium*, 5. I, excl. 27. I – 1. II. 1901 (*Wlsm.*); Malaga, ⊕ *Symphytum*, 31. I, excl. 13–14. II. 1901 (*Wlsm.*). N. AFRICA—ALGERIA: Bône, 6–21. IV. 1896 (*Eaton*); Constantine, 26. X. 1895 (*Eaton*)—TUNIS: Tunis, 5. XII. 1893 (*Eaton*). **Madeiras**[3–4, 8]: MADEIRA: (*Wollaston*)[3–4, 8]; Monte, Funchal, 13. IV. 1904 (*Eaton*). **Canaries**[4–8]—TENERIFE[4–6]: IV. 1885 (*Leech*)[4]; Santa Cruz, 1895 (*Hedemann*)[5], 7–12. I. 1907, ⊕ *Symphytum*, 26. XII, excl. 14. I. 1907 (*Wlsm.*); San Andres, ⊕ *Echium spinosum*, 23. I, excl. 26–28. I. 1907 (*Wlsm.*); Puerto Orotava, IV. 1895 (*Hedemann*)[5], ⊕ *Echium sp.*, 8. V, excl. 6. V. 1907 (*Wlsm.*); Realejo, 7. V. 1907 (*Wlsm.*)—GRAN CANARIA: 1895 (*Hedemann*)[5].

This species is common at Santa Cruz, and Guimar, and indeed wherever its food-plants are found. I bred it from at least three different species of *Echium*, as well as from *Symphytum*, in Tenerife, and am able to extend the distribution of the species from captures by Mr. Eaton and myself.

48. (420) GRACILARIA Hw.

98. (4057) GRACILARIA ROSCIPENNELLA Hb.

Tinea roscipennella Hb. Smlg. Eur. Schm. VIII. Pl. **29** · 128 (1796)[1]. *Poecilioptilia roscipennella* Hb. Verz. Schm. 427 no. 4167 (1826)[2]. *Gracilaria roscipennella* Rbl. Ann. KK. Hofmus. VII. 278, 283 no. 62 (1892)[3]: IX. 18, 91 no. 180 (1894)[4]; Wlsm. Tr. Ent. Soc. Lond. **1894**. 538, 555 no. 63 (1894)[5]; Stgr-Rbl. Cat. Lp. Pal. II. 207 no. 4057 (1901)[6]: Rbl. Ann. KK. Hofmus. XXI. 44 no. 237 (1906)[7].

Hab. WC. ASIA. C–S. EUROPE: ⊕ *Juglans*—SPAIN: GRANADA: Sierra Nevada, 3 VI. 1901 (*Wlsm.*). **Madeiras**[5–6]—MADEIRA[5]: San Antonio da Serra (*Wollaston*)[5]; Rabaçal, 3430 ft., 29. IV. 1904 (*Eaton*). **Canaries**[3–7]—TENERIFE[3–7]: IV. 1885 (*Leech*)[4]; La Laguna, ⊕ *Laurus canariensis*, 19. V, excl. 9. VI – 21. VII. 1907 (*Wlsm.*); Taganana, 9. VIII. 1889 (*Simony*)[3].

Prof. Rebel records specimens taken by Professor Simony, above Taganana, among *Woodwardia radicans*; he subsequently recognised a worn specimen, in my own collection (61049), received from the late Mr. J. H. Leech, from Tenerife. I have now succeeded in breeding a few examples from larvae forming conspicuous cones on *Laurus canariensis*, collected in the neighbourhood of La Laguna and Tegeste: after comparing them with a series bred from leaves of *Juglans*, at Cannes, I am quite unable to separate them, but I failed to find any larvae on *Juglans* in Tenerife, although some trees grew at no great distance from the spot where most of my larvae were taken.

99. (4057·1) Gracilaria staintoni Wlstn. (Plate LIII. fig. 14.)

Gracilaria staintoni Wlstn. Ann-Mag. NH. (3 s.). I. 122 (1858)[1]: Wkr. Cat. Lp. BM. XXX. 854 no. 24 (1864)[2]; Wlsm. Tr. Ent. Soc. Lond. **1894**. 538, 555 no. 62 (1894)[3]; Stgr-Rbl. Cat. Lep. Pal. II. 206 no. 4049 (1901)[4].

Antennae pale brownish yellow. *Labial Palpi* white, smeared with tawny reddish on the outer side of the terminal joint, and toward the apex of the median. *Maxillary Palpi* white, tipped with tawny reddish. *Head* pale yellowish brown; face whitish. *Thorax* bright golden yellow above; the tegulae reddish brown. *Forewings* very long and narrow; shining, bright, pale golden yellow, with a purplish lilac suffusion spreading over the dorsal half and becoming rather darker across the apex; at the upper edge of the purplish shade are two or three slight projections of a rather more intense colour, and, on either side of the middle of the costa above them, are one or more minute black dots; cilia reddish purple above the apex, reddish ochreous below it, dark tawny grey along the dorsum. *Exp. al.* 13–14 mm. *Hindwings* shining, leaden grey; cilia tawny grey. *Abdomen* leaden grey, silvery white beneath. *Legs* pale grey, the tarsi fading to whitish, and very faintly spotted.

Type ♀ (no. XL) Mus. Br.; *CT.* ♂ (99127); ♀ (14175) Mus. Wlsm.

Hab. **Madeiras**[1-4] — Madeira[1-4]: Funchal, 16. IV. 1904 (*Eaton*); The Mount, 1855 (*Wollaston*)[1, 3]. **Canaries**—Tenerife: Las Mercedes, 30. III. 1904 (*Eaton*); Taganana, 27. V. 1907; Agua Garcia, Tacaronte, 31. V. 1907 (*Wlsm.*); La Laguna, ⊕ *Laurus canariensis*, 19. V, excl. 12. VI. 1907 (*Wlsm.*).

This species was captured at Taganana, and at Agua Garcia, near Tacaronte, and subsequently bred from larvae feeding in large cones on the leaves of *Laurus canariensis*, which were undistinguishable from the cones made by *roscipennella* on the same tree. Mr. Eaton took this species at Funchal, and at Las Mercedes, in 1904.

100. (4057·2) Gracilaria schinella, sp. n. (Plate LIII. fig. 13.)

Antennae pale brownish ochreous, faintly dark-barred above. *Palpi* brownish ochreous, smeared with rust-brown externally. *Head* and *Thorax* brownish ochreous; the tegulae touched with purplish. *Forewings* pale ochreous, suffused with reddish lilac, more strongly at the base of the costa than elsewhere, and notably less on a pale, elongate, mediocostal patch extending to the fold, which, however, like the rest of the wing-surface, is distinctly iridescent; the more suffused portions exhibit every possible variety of iridescence, from purple to green, and cupreous, according to the incidence of light; there is a purplish shade in the cilia below the apex, but the dorsal cilia are pale, iridescent, bronzy greyish. *Exp. al.* 11–14 mm. *Hindwings* ½; pale leaden

grey; cilia iridescent, greyish cupreous. *Abdomen* grey, anal tuft ochreous. *Legs* cinereous; the femora and tibiae of the anterior and median pairs thickly clothed with tawny reddish fuscous.

Type ♂ (99130); ♀ (99131) Mus. Wlsm.

Hab. TENERIFE: Santa Cruz, 3. I. 1907, ⊕ *Schinus molle*, 27. XII – 11. I, excl. 22. I – 7. III. 1907. Fifteen specimens.

This species is exceedingly common at Santa Cruz, where the young larva mines the leaflets of *Schinus molle*. It subsequently forms a blister, like that of a *Phyllonorycter*, and eventually rolls a whole leaflet into a compact cone, sometimes pupating within it, but frequently leaving it and forming a smooth, silken cocoon under another leaf. It is remarkable that this species should have escaped observation so long, the tree on which it lives being so commonly introduced in all parts of the south of Europe. It is probably not indigenous in Tenerife, but, if this be the case, it is one of the very rare instances of the introduction of an exotic insect with an imported plant.

101. (4057·3) GRACILARIA AURANTIACA Wlstn.
(Plate LIII. fig. 12.)

Gracilaria? aurantiaca Wlstn. Ann-Mag. NH. (3 s.). I. 122 (1858)[1]; Wkr. Cat. Lp. BM. XXX. 854 no. 25 (1864)[2]. *Blastobasis (?) aurantiaca* Wlsm. Tr. Ent. Soc. Lond. **1894**. 538, 552 no. 53 (1894)[3]; Stgr-Rbl. Cat. Lp. Pal. II. 164 no. 3066 (1901)[4]. *Gracilaria sp.* Rbl. Ann. KK. Hofmus. XXI. 39, 44 no. 238 (1906)[5].

Antennae ochreous, faintly barred above with chestnut-brown. *Palpi* ochreous, the median joint chestnut-brown on its outer side. *Head* ochreous. *Thorax* brownish ochreous; tegulae tinged with reddish. *Forewings* rich brownish ochreous, suffused with tawny red toward the apex; with a broad, rich tawny red, triangular patch, commencing at the base of the costa and extending two-thirds the length of the wing, its lower angle slightly crossing the fold before the middle; from the tornus arises an inverted, short, diffused streak of the same colour, the cilia also are tawny reddish, except on the costa before the apex, where they are pale cinereous. *Exp. al.* 11–15 mm. *Hindwings* shining, pale grey; cilia pale cinereous. *Abdomen* cinereous. *Legs* pale cinereous, unspotted.

Type ♀ (no. XXXIX) Mus. Br.; *CT.* ♂ (99145); ♀ (99146) Mus. Wlsm.

Hab. **Madeiras**[1–4]—MADEIRA[1–3]: 1855 (*Wollaston*)[1–3]. **Canaries**—TENERIFE: 1905 (*White*)[5]: Villa Orotava, 19. II. 1907; Guimar, ⊕ *Hypericum grandifolium*, 19. III, excl. 5–26. IV. 1907 (*Wlsm.*); Cruz de Afur, 5. IV. 1904 (*Eaton*); Arafo, 13. IV. 1907; Puerto Orotava, 23. IV – 10. V. 1907; Realejo, 7. V. 1907; Taganana, 27. V. 1907; Las Mercedes, 31. V. 1907; La Laguna, 3. VI. 1907 (*Wlsm.*).

This species is extremely common in all the barrancos about Guimar, and Villa Orotava, and probably everywhere from 1000–3000 ft. It forms cones on at least two species of *Hypericum* (*grandifolium*, *canariense*, etc.). It is the *Gracilaria sp.*, no. 238 of Rebel's List, and on comparison proves to be the species described as *Gracilaria? aurantiaca* by Wollaston, from Madeira, which I erroneously listed as *Blastobasis? aurantiaca* (*l. c.* **3**).

49. (423) BEDELLIA Stn.

102. (4107) Bedellia somnulentella Z.

n. syn. = **daphneella* Wlsm. (nec Stgr.).

Lyonetia somnulentella Z. Isis **1847**. 894–5 no. 432[1]. *Bedellia somnulentella* Stn. Ann-Mag. NH. (3 s.). III. 214 (1859)[2]; Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 542 no. 24 (1894)[3]. **Phyllobrostis* **daphneella* Wlsm. Tr. Ent. Soc. Lond. **1894**. 538, 555 no. 66 (1894)[4]. *Bedellia somnulentella* Rbl. Ann. KK. Hofmus. XI. 137, 147 no. 213 (1896)[5]; Busck Pr. US. Nat. Mus. XXIII. 243–4 (1900)[6]; Stgr-Rbl. Cat. Lp. Pal. II. 210 no. 4107 (1901)[7]; Dyar Bull. US. Nat. Mus. **52**. 557 no. 6337 (1902)[8]; Wlsm. Fn. Hawaii. I. 723–4 no. 430. Pl. **25** · 28 (1907)[9].

Hab. C-S. EUROPE[1, 7, 9]: ⊕ *Convolvulus spp.* (*althaeoides*, *arvensis*, *cantabrica*, *mauretanica*, *sepium*)[9], *Ipomoea purpurea*[9]—Spain: malaga: Malaga, ⊕ *Convolvulus althaeoides*, 30. XII, excl. 16. II. 1901 (*Wlsm.*); Torremolinos, 29. I, excl. 3. III. 1901 (*Wlsm.*). N. AFRICA—Algeria: Biskra, 5–12. III. 1903 (*Wlsm.*), 21. IV. 1895, 3. VI. 1893 (*Eaton*); El-Guerrah, 27. V. 1903 (*Wlsm.*). **Madeiras**[2, 5, 7, 9]—Madeira[2–5]: The Mount (*Wollaston*)[4]. **Canaries**[5, 7, 9]—Tenerife[5]: Santa Cruz, ⊕ *Convolvulus althaeoides*, 10. I, excl. 22. I – 10. III. 1907 (*Wlsm.*); Guimar, 2. III. 1907 (*Wlsm.*); Puerto Orotava, 23. IV. 1895 (*Hedemann*)[5]. UNITED STATES[3, 5–9]: ⊕ *Ipomoea*, *Pharbitis*[9]. HAWAIIA[9]. AUSTRALIA[9]. N. ZEALAND[9].

Common on various species of *Convolvulus*: I have recognised the mines on *Convolvulus floridus*, and bred it from *C. althaeoides*.

The record of the occurrence of "*Phyllobrostis daphneella Stgr.*" in the Madeiras [Wlsm. Tr. Ent. Soc. Lond. **1894**. 538, 555 no. 66] must be corrected: examining again the fragment, thus identified at the time, I find it to be a remnant of *Bedellia somnulentella* Z., which Stainton had already recorded from Madeira.

50. (426) TISCHERIA Z.

103. (4210·1) Tischeria tantalella, sp. n.

Antennae pale fawn-ochreous. *Palpi*, *Head*, and *Thorax* pale fawn-ochreous. *Forewings* pale fawn-ochreous, thickly sprinkled with yellowish, and some fawn-brownish, scales, the latter condensed in a narrow streak along the base of the costa, and in a small, but conspicuous tornal spot; cilia brownish grey. *Exp. al.*

8 mm. *Hindwings* pale grey; cilia brownish grey. *Abdomen* grey above, pale yellowish at the sides and beneath. *Legs* shining, fawn-whitish.

Type ♂ (98990) Mus. Wlsm.

Hab. TENERIFE: Guimar, 2. III. 1907. Unique.

The most persistent searching failed to secure a second specimen; there was no oak anywhere near where it occurred. It appears to be more nearly allied to North American than to European species.

104. (4215) TISCHERIA LONGICILIATELLA Rbl.

Tischeria longiciliatella Rbl. Ann. KK. Hofmus. XI. 141–2, 147 no. 218 (1896)[1]: XXI. 44 no. 243 (1906)[2]: Stgr-Rbl. Cat. Lp. Pal. II. 217 no. 4215 (1901)[3].

Hab. TENERIFE[1–3]: Villa Orotava, ⊕ *Rubus fruticosus*, 19. II, excl. 27. II – 22. III. 1907 (*Wlsm.*); Guimar, 28. II – 19. III. 1907, ⊕ *Rubus fruticosus*, 27. II, excl. 17. III – 13. IV. 1907 (*Wlsm.*); Las Mercedes, 2000 ft., 7. III. 1904 (*Eaton*); Forest de la Mina, 7. IV. 1904 (*Eaton*); Puerto Orotava, 15–17. IV. 1895 (*Hedemann*)[1], 3–14. V. 1907 (*Wlsm.*); La Laguna, 8. IV. 1904 (*Eaton*), 9. VI. 1907 (*Wlsm.*).

I have bred this species from *Rubus fruticosus*, amongst which it was found by von Hedemann, and Eaton. Rebel described his type as dark brownish, remarking that his second specimen, which was somewhat worn, had traces of brassy yellow colouring. Some specimens show much more ochreous spotting than the typical form, of which I have several caught and some bred specimens, in which the small yellow dorsal spot before the tornus is almost obsolete; others again, bred and caught, show three strong yellow patches on the outer half of the wing, more or less connected with each other, and another at the base of the costa. The many intermediate gradations clearly prove that these are mere variations of one species.

Tischeria longiciliatella Rbl. must not be confused with the Texan *Tischeria longeciliata* Frey and Boll [Stett. Ent. Ztg. XXXIX. 259 (1878), ⊕ *Helianthus*], which Prof. Rebel probably overlooked when naming the Tenerife species.

51. (446) ACROLEPIA Crt.

105. (4478) ACROLEPIA VESPERELLA Z.

Rösslerstammia vesperella Z. Stett. Ent. Ztg. XI. 156–7 no. 158 (1850)[1]. *Acrolepia vesperella* Hrtm. MT. Münch. Ent. Ver. IV. 4 no. 1529 (1880)[2]; Stgr-Rbl. Cat. Lp. Pal. II. 232 no. 4478 (1901)[3].

Hab. S. EUROPE[1–3]: ⊕ *Smilax aspera*, V, X, excl. IV, IX[2]—ITALY: Rome, 10–25. IV. 1893 (*Wlsm.*)—FRANCE: Monte Carlo, 19–22. VI. 1898 (*Wlsm.*). N. AFRICA[3]—MOROCCO: Tangier, 30–31. XII. 1901 (*Wlsm.*)—ALGERIA: El-Biar, 2. III – 7. IV.

1893 (*Eaton*); Ruisseau des Singes, Médéa, 26. VII. 1893 (*Eaton*). **Canaries**—Tenerife: Las Mercedes, 30. III. 1904 (*Eaton*), 29. V – 7. VI. 1907 (*Wlsm.*); Cruz de Afur, 5. IV. 1904 (*Eaton*); Forest de la Mina, 9. IV. 1904 (*Eaton*); Guimar, 10. IV. 1907 (*Wlsm.*); La Laguna, 23–31. V. 1907 (*Wlsm.*); Tacaronte, 31. V. 1907 (*Wlsm.*).

Found commonly at various localities: not previously recorded from the Canaries.

106. (4489·1) Acrolepia pappella, sp. n.
(Plate LIII. fig. 15.)

Antennae fuscous, clearly spotted with white along their under sides. *Palpi* cinereous, shaded transversely with fuscous on each joint beneath. *Head* and *Thorax* cinereous, mixed with fuscous. *Forewings* pale cinereous, partially suffused with pale fawn, and speckled with fuscous; a series of black specks along the basal third of the costa, and some small, obscure, fuscous cloud-spots on the outer half of the costa; two rather larger cloud-spots on the dorsum, preceded and followed by white scaling, the white patch between them containing two short upright streaks of blackish speckling; a fuscous line along the termen, and a broader shade of the same on the outer half of the pale cinereous terminal cilia. *Exp. al.* 10–12 mm. *Hindwings* pale steely grey; cilia pale brownish cinereous. *Abdomen* and *Legs* greyish; the tarsi with pale spots at the joints.

Type ♀ (99151); ♂ (99152) Mus. Wlsm.

Hab. Tenerife: Guimar, 28. II. 1907, ⊕ *Allagopappus dichotomus*, 28. II, excl. 30. III. 1907; Villa Orotava, ⊕, 19. II, excl. 19–30. III. 1907; Puerto Orotava, ⊕, 20. IV, excl. 27–30. IV. 1907. Twelve specimens.

Larva on *Allagopappus dichotomus*, mining the leading leaves, and pupating in a white open network cocoon among these, or on the stems. Two specimens taken on the wing at Guimar, where larvae were found the same day, and on different dates at Orotava.

52. (292) PLUTELLA Schrk.

107. (2447) Plutella maculipennis Crt.

= *cruciferarum* Z.[6]

Cerostoma maculipennis Crt. Br. Ent. IX. Pl. **420**, expl. p. 2 (1832)[1]. *Plutella cruciferarum* Z. Stett. Ent. Ztg. IV. 281–3 (1843)[2]; Stn. Ann-Mag. NH. (3 s.). III. 212 (1859)[3]; Rbl. Ann. KK. Hofmus. VII. 272, 283 no. 53 (1892)[4]; Wlsm. Tr. Ent. Soc. Lond. **1894**, 537, 542 no. 26 (1894)[5]. *Plutella maculipennis* Wlsm. & Drnt. Ent. Mo. Mag. XXXIII. 173–5 (1897)[6]; Stgr-Rbl. Cat. Lp. Pal. II. 137 no. 2447 (1901)[7]; Dyar Bull. US. Nat. Mus. **52**. 492 no. 5503 (1902)[8]; Rbl. Ann. KK. Hofmus. XXI. 44 no. 207 (1906)[9]; Meyr. Pr. Lin. Soc. NSW. XXXII.

145–6 no. 284 (1907)[10]; Wlsm. Fn. Hawaii. I. 652–3, 751 no. 330 (1907)[11].

Hab. EUROPE[1–2, 7, 11]. ASIA[11]. AFRICA[11]. **Madeiras**[3–5, 9]—MADEIRA[3–5]: Funchal (*Wollaston*)[5]; San Antonio da Serra (*Wollaston*)[5]. **Canaries**[4–5, 9]—TENERIFE: La Laguna, 1. IV. 1904 (*Eaton*), 10. VI. 1907 (*Wlsm.*); Santa Cruz, 31. XII. 1906 (*Wlsm.*).—ALEGRANZA[4, 9]: 12. IX. 1890 (*Simony*)[4]. AMERICA[8]. HAWAIIA[11]. OCEANIA[11]. AUSTRALIA[10]. NEW ZEALAND[10].

Abundant everywhere.

53. (269) PORPE Hb.

=**Choreutis* (Hb. p.) Stgr-Rbl.

Type *Tinea bjerkandrella* Thnb. (=*vibrana* Hb. 202) Hb. (1826).

PORPE Hb. Verz. Schm. 373 no. 3579 (1826). **Choreutis* Stgr-Rbl. Cat. Lp. Pal. II. 129 no. 269 (1901); Dyar Bull. US. Nat Mus. **52**. 493–4 (1902).

Choreutis Hb. is a synonym of *Hemerophila* Hb., the type of both being *Phalaena* (*Tortrix*) *pariana* Cl.; Hübner's geneonym **Porpe** must therefore be used for *bjerkandrella* and its allies instead of *Choreutis*.

108. (2311) PORPE BJERKANDRELLA Thnbg.

Tinea bjerkandrella Thnbg. Diss. Ent. Ins. Suec. I. 24. Pl. [1 24–5] (1784)[1]: Diss. Ac. Upsal. III. 36. Pl. **4**· 24–5 (1801)[2] *Xylopoda pretiosana* Dp. HN. Lp. Fr. Sppl. IV. 182 no. 362. Pl. **65**· 9 (1842)[3]. *Choreutis bjerkandrella* E. Wlstn. Ann-Mag. NH. (5 s.). III. 342 (1879)[4]: Lp. St. Helena 29–30 (1879)[4]; Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 545 no. 36 (1894)[5]. *Choreutis pretiosana* Rbl. Ann. KK. Hofmus. VII. 266, 282 no. 43 (1892)[6]: XI. 122, 146 no. 173 (1896)[7]: XXI. 44 no. 202 (1906)[8]. *Choreutis bjerkandrella* Thnbg.+*pretiosana* Stgr-Rbl. Cat. Lp. Pal. II. 129 no. 2312[a] (1901)[9]. *Choreutis bjerkandrella* Meyr. Pr. Lin. Soc. NSW. XXXII. 109 no. 203 (1907)[10].

Hab. ASIA[9]. EUROPE[9]. **Madeiras**[5–6, 9]—MADEIRA[5]: Funchal (*Wollaston*)[5]. **Canaries**[5–9]—TENERIFE[5]: Santa Cruz, 10. I – 7. II. 1907, ⊕ *Inula viscosa*, 18. I, excl. 9–13. II. 1907 (*Wlsm.*), 3. V. 1895 (*Hedemann*)[7], 9. VIII. 1889 (*Simony*)[6]; La Laguna, 15–16. III. 1902, 6. IV. 1904 (*Eaton*); Guimar, ⊕ *Gnaphalium luteoalbum*, 25. II, excl. 11–23. III. 1907 (*Wlsm.*); IV. 1884 (*Leech*); Puerto Orotava, 1895 (*Hedemann*)[7], 3. V. 1907, ⊕ *Thistle*, 3. V, excl. 16. V. 1907 (*Wlsm.*). **St. Helena**[4]: Plantation; Cleugh's Plain; West Lodge (*E. Wollaston*)[4]. AUSTRALIA[10].

Taken and bred from *Gnaphalium* at Guimar, taken and bred from Thistles at Puerto Orotava, and bred from *Inula* at Santa Cruz: no difference can be found between the specimens.

54. (270) HEMEROPHILA Hb.

HEMEROPHILA Hb. (1806), Frnld., Dyar; = § *ANTHOPHILA* Hw. (1811); = SIMAETHIS Leach (1815), Stgr-Rbl.; [= *TEBENNA Bllbg. (1820) LN.*]; = ⸸ *XYLOPODE* Ltr. (1825); = *CHOREUTIS* Hb. (1826); = *EUTROMULA* Fröl. (1828); = *XYLOPODA* Ltr. (1829); = ENTOMOLOMA Rgt. (1875).

Type 1. *Phalaena Tortrix pariana* Cl. (Hb. 1806).

HEMEROPHILA Hb. Tent. p. [2] (1806). *CHOREUTIS* Hb. Verz. Schm. 373 (1826). *EUTROMULA* Fröl. Enum. Tort. Würt. 11 (1828).

Type 2. *Phalaena Tortrix fabriciana* L. (Leach 1815).

§ *ANTHOPHILA* Hw. Lp. Br. 471 (1811). SIMAETHIS Leach, Brewster's Edinb. Encycl. IX. 135 no. 466 (1815). [*TEBENNA Bllbg. Enum. Ins. Mus. Bllbg. 90 (1820) LN.*]. ⸸ *XYLOPODE* Ltr. Fam. Nat. Règne An. 476 (1825). *XYLOPODA* Ltr. Cuv. Règne An. (2 ed.). V. 412 (1829).

Type 3. *Tortrix nemorana* Hb.

* *XYLOPODA* (Ltr.) Dp. Ann. Soc. Ent. Fr. III. 448–9 no. 21 (1834): HN. Lp. Fr. IX. 24, 456 no. 21 (1834). ENTOMOLOMA Rgt. Bull. Soc. Ent. Fr. XLIV. (5 s. V: **1875**). p. xliii (1875).

Choreutis Hb. must be sunk as a synonym of *Hemerophila* Hb., the type of both being *pariana* Cl.: *Simaethis* Leach (type *fabriciana* L.) and *Entomoloma* Rgt. (type *nemorana* Hb.) are potential geneonyms.

109. (2314) HEMEROPHILA NEMORANA Hb.

Tortrix nemorana Hb. Smlg. Schm. Eur. VII. Pl. 1 · 3 (1797)[1]. *Choreutis nemorana* Hb. Verz. Schm. 373 no. 3577 (1826)[2]. *Simaethis nemorana* Hrtm. MT. Münch. Ent. Ver. III. 194 no. 1305 (1879)[3]; Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 545 no. 37 (1894)[4]; Rbl. Ann. KK. Hofmus. VII. 266, 282 no. 44 (1892)[5]: XI. 122, 146 no. 173 (1896)[6]: XXI. 44 no. 203 (1906)[7]: Stgr-Rbl. Cat. Lp. Pal. II. 129 no. 2314 (1901)[8].

Hab. WC. ASIA[8]. S. EUROPE[8]: ⊕ *Ficus* VIII–IX, excl. IV–VI[3]—S. SPAIN: Granada, ⊕ *Ficus*, 4–11. VI, excl. 11. VI – 4. VII. 1901 (*Wlsm.*). N. AFRICA[8]—ALGERIA[5]: Constantine, 28. V. 1895 (*Eaton*); Médéa, 21. VII. 1893 (*Eaton*); Azazga, 2. IX. 1893 (*Eaton*). **Madeiras**[4, 6, 8]—MADEIRA[4]: The Mount (*Wollaston*)[4]. **Canaries**[5–8]—LA PALMA[5–7]: 20. VIII. 1889 (*Simony*)[5]—HIERRO[5–7]: 28. VIII. 1889 (*Simony*)[5]—TENERIFE[6–7]: Santa Cruz, 3. V. 1895 (*Hedemann*)[6]; Puerto Orotava, 4–14. V. 1907 (*Wlsm.*).

Taken and bred from Fig-trees: obviously an introduced species.

110. (2318) Hemerophila fabriciana L.

= *oxyacanthella* L.

Phalaena Tortrix fabriciana L. Syst. Nat. (ed. XII.). I. 880 no. 324 (1767)[1]. *Phalaena Tinea oxyacanthella* L. Syst. Nat. (ed. XII.). I. 886 no. 357 (1767)[2]. *Simaethis fabriciana* Stph. List Br. An. BM. V. Lp. 248 (1850)[3]; Stn. Ann-Mag. NH (3 s.). III. 210 (1859)[4]. *Simaethis oxyacanthella* Hrtm. MT Münch. Ent. Ver. III. 194 no. 1309 (1879)[5]; Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 545 no. 38 (1894)[6]. *Simaethis fabriciana* Stgr-Rbl. Cat. Lp. Pal. II. 129 no. 2318 (1901)[7].

Hab. WC. ASIA[7]. EUROPE[1-7]: ⊕ *Urtica*, *Parietaria*[5]. **Madeiras**[4, 6-7]—Madeira[4]: (*Wollaston*)[4, 6]. **Canaries**—Tenerife: IV. 1884 (*Leech*).

I have a single specimen (61978), taken in Tenerife, in April 1884, by the late Mr. J. H. Leech, but did not myself meet with this species, which has not been recorded from the Canaries.

55. (272) GLYPHIPTERYX Hb.

111. (2333) Glyphipteryx pygmaeella Rbl.

Glyphipteryx pygmaeella Rbl. Ann. KK. Hofmus. XI. 132–3, 147 no. 247 (1896)[1]: XXI. 44 no. 204 (1906)[2]: Stgr-Rbl. Cat. Lp. Pal. II. 130 no. 2333 (1901)[3].

Hab. **Canaries**[1-3]—Tenerife[1-2]: Cruz de Afur, 5. IV. 1904 (*Eaton*); Puerto Orotava, 22. IV. 1895 (*Hedemann*)[1]; La Laguna, 7. VI. 1907 (*Wlsm.*)—Gran Canaria[1-2]: Las Palmas, 10. V. 1895 (*Hedemann*)[1].

One specimen only of this species was met with at La Laguna, on June 7th, I have also one from Mr. Eaton, taken near the Cruz de Afur, on April 5th.

112. (2336·1) Glyphipteryx fortunatella, sp. n.
(Plate LII. fig. 18.)

Antennae bronzy fuscous. *Palpi* white, spotted with fuscous along their outer sides. *Head* cupreous. *Thorax* bronzy fuscous. *Forewings* bronzy fuscous, blending to brownish cupreous beyond the middle; with five distinct white costal streaks, the first, about the middle of the costa, tending obliquely outward, longer than the second, which is a little beyond it, also oblique, but not parallel, tending rather to converge; after a space, at least equal to that which divides the first pair of streaks on the costa, there follows a series of three shorter streaks, their points slightly converging in the direction of a short, white, curved, terminal incision below the apex; beyond these the cilia form a sharply uncate apex, owing to the outer extremities of those below it being pure white, while their basal halves are bronzy grey surrounding a black apical spot; the whitened cilia, after con-

tributing to the subapical incision, are continued along the termen to the tornus, with their basal halves bronzy cupreous; at the tornus is a short, silvery white, triangular spot, and from the middle of the dorsum arises a rather slender, slightly curved, outwardly oblique, white silvery streak, which nearly reaches to the apex of the first costal streak above it. *Exp. al.* 6–6·5 mm. *Hindwings* bronzy grey; cilia scarcely paler. *Abdomen* bronzy fuscous. *Legs* bronzy greyish, the spurs and joints white.

Type ♀ (99102); ♂ (99103) Mus. Wlsm.

Hab. Tenerife: Guimar, 10–14. IV. 1907; Villa Orotava, 26. IV. 1907; Realejo, 7. V. 1907. Nineteen specimens.

Nearly allied to *fischeriella* Z., but differing in the middle white costal streak being always nearer to the following than to the preceding pair, whereas in *fischeriella* it is equidistant between them. It also differs in the more evenly slender, and more produced, oblique dorsal streak, which always reaches as far as, or a little beyond, the apex of the first costal. *G. fortunatella* is smaller than *pygmaeella*, and is common in the neighbourhood of Guimar, in the Barranco Badajos; it occurs also at Villa Orotava and Realejo.

V. PHALONIADAE.

56. (235) LOXOPERA Stph.

= †*Lozopera* Stph., Stgr-Rbl.

113. (1646) Loxopera francillonana F.

= † *francillana* F., Stgr-Rbl.; = **flagellana* Rbl. (nec Dp.).

Pyralis francillana F. Ent. Syst. III. (2). 264–5 no. 94 (1794)[1]. *Lozopera francillonana* Wlsm. Ent. Mo. Mag. XXXIV. 71–2. Pl. 2· 1[a–d] (1898)[2]. *Conchylis* **flagellana* Rbl. Ann. KK. Hofmus. XI. 119, 146 no. 166 (1896)[3]. *Lozopera francillana* Stgr-Rbl. Cat. Lp. Pal. II. 94 no. 1646 (1901)[4]. *Conchylis francillana* Rbl. Ann. KK. Hofmus. XXI. 37, 43 no. 193 (1906)[5].

Hab. WC. ASIA[4]. EUROPE[1–2, 4]: ⊕ *Daucus carota*, *Ferula communis*[2]. **Canaries**[3–5]—Tenerife[3–5]: Santa Cruz, ⊕ *Todaroa aurea*, 12. II, excl. 17. IV – 29. V. 1907 (*Wlsm.*), 3. V. 1895 (*Hedemann*)[3].

Prof. Rebel (*l. c.* 5) records *francillonana* from Tenerife, on the strength of a specimen in Mr. White's collection, remarking that it was almost certainly the same as the specimen collected by von Hedemann, at Santa Cruz, May 3rd, 1895, which (*l. c.* 3) he had identified as **flagellana*. I met with *francillonana*, also at Santa Cruz, in February, feeding among the seeds of *Todaroa aurea*, an indigenous *Umbellifer*. The larvae soon left the seed-heads, and as I had taken no stems of the plant, when leaving Santa Cruz, they travelled restlessly round the bottles for many

days after reaching Guimar: on being supplied with small pieces of *Bambusa*, and of the first *Umbellifer* I could find, they quickly gnawed their way into both of these and pupated, the moths emerging from April 17th to May 29th.

114. (1647) Loxopera bilbaënsis Rslr.

Conchylis francillana F. + *bilbaënsis* Rslr. Stett. Ent. Ztg. XXXVIII. 372 (1877)[1]. *Lozopera bilbaënsis* Wlsm. Ent. Mo. Mag. XXXIV. 72–3. Pl. 2 · 2[a-d] (1898)[2]; Stgr-Rbl. Cat. Lp. Pal. II. 94 no. 1647 (1901)[3].

Hab. S. EUROPE[1-3]: ⊕ *Crithmum maritimum*[2]. **Canaries**—Tenerife: La Laguna, 6. IV. 1904 (*Eaton*); Puerto Orotava, 4. V. 1907, ⊕ *Crithmum maritimum*, 29. IV, excl. 9. V – 17. VII. 1907, ⊕ *Ferula sp.*, 29. IV, excl. 29. VII. 1907 (*Wlsm.*); Bajomar, ⊕ *Astydamia canariensis*, 22. V, excl. 3. VI – 19. VIII. 1907 (*Wlsm.*).

Larvae found in stems of *Crithmum maritimum*, at Puerto Orotava, in May, produced paler and darker varieties from the beginning of May to the middle of July. I subsequently found it in great abundance in stems of *Astydamia canariensis*, at Bajomar, from which I reared a series of twenty specimens: a careful examination of the chitinous genital appendages shows them to be the same as in the *Crithmum*-feeder, and in a series of Spanish and Corsican specimens, also reared from *Crithmum*. A single specimen was also bred from the stems of a species of *Ferula*, found at Puerto Orotava. Were it not for the differences in the form of the uncus and claspers it would be exceedingly difficult to separate this species from *francillonana*, but the hind-wings are almost invariably paler. A somewhat worn specimen taken by Mr. Eaton, at La Laguna, in April 1904, is unfortunately a ♀, but I think it is certainly *bilbaënsis*.

◯ – 57. (236) PHALONIA Hb.

= *Conchylis* Tr., Stgr-Rbl.

115. (1666) Phalonia carpophilana Stgr.

Cochylis carpophilana Stgr. Stett. Ent. Ztg. XX. 228–9 no. 45 (1859)[1]. *Conchylis carpophilana* Stgr-Rbl. Cat. Lp. Pal. II. 95 no. 1666 (1901)[2]. *Phalonia carpophilana* Wlsm. Ent. Mo. Mag. XXXVII. 235 (1901)[3].

Hab. S. EUROPE—S. Spain[1-3]: huelva: Coto, ⊕ *Asphodelus ramosus*, IV[e], excl. 6–28. V. 1901 (*Wlsm.*)[1]. N. AFRICA—Algeria: Constantine, 16. VI. 1894 (*Eaton*). **Canaries**—Tenerife: Santa Cruz, 22. I – 11. II. 1907; Guimar, 6–16. IV. 1907, ⊕ *Asphodelus ramosus*, 2–9. IV, excl. 13. IV. 1907 (*Wlsm.*).

Taken at Santa Cruz, in January, and at Guimar, in April—also bred from seeds of *Asphodelus ramosus* at the latter place, the bred specimen being much larger (*exp. al.* 17 mm.) than any individual of my Spanish bred series. The larvae were also observed at Puerto Orotava.

C— 116. (1762·2) Phalonia conversana, sp. n.
(Plate LIII. fig. 6.)

Antennae pale greyish. *Palpi* white, brownish fuscous on the outer side of the median joint. *Head* and *Thorax* white. *Fore-wings* white, with a faint subochreous suffusion, and a few sparsely sprinkled black scales, between, but not contiguous to, the dark markings, which consist of more or less thickly sprinkled black scales on a browner, or greyish brown, ground; the dark markings are as follows: an elongate streak from the base of the costa, a narrow medio-costal spot, a larger costal spot between this and the apex, with a small one beyond it before the apex; an oblique, straight, dorsal streak, of even width, terminated on the cell, and a faint shade above, forming a subcontinuous fascia with the medio-costal spot; a rather triangular dorsal spot, beyond the middle, half-way between the oblique streak and the tornus, with some dark sprinkling above it, running obliquely in the direction of the larger costal spot, and a narrow shade along the termen, followed by parallel dark lines running through the cilia. *Exp. al.* 9–14·5 mm. *Hindwings* slightly sinuate; pale brownish grey; cilia shining, silvery grey, becoming shining white on their outer halves. *Abdomen* pale brownish grey. *Legs* almost white, unspotted.

Type ♂ (99104); ♀ (99105) Mus. Wlsm.

Hab. Tenerife: Guimar, 25. III – 9. IV. 1907 (*Wlsm.*); La Laguna, 6. IV. 1904 (*Eaton*); Puerto Orotava, 26. IV. 1907 (*Wlsm.*). Thirty-two specimens.

Taken among *Artemisia canariensis*, from which, but from no other plant, they were easily dislodged by beating: I was unable to discover the larva. Differing from *versana* Wlsm. in its more distinct and darker markings, and especially in the form of the oblique dorsal streak, which is rather more oblique, and of even width throughout.

58. (237) PHARMACIS Hb.

= *Euxanthis* Hb., Stgr-Rbl.

C— 117. (1723) Pharmacis chamomillana HS.

Cochylis chamomillana HS. SB. Schm. Eur. IV. 183 no. 128, *chamomilana* Pl. **53**·377 (1851)[1]. *Conchylis chamomillana* Stgr-Rbl. Cat. Lp. Pal. II. 97 no. 1723 (1901)[2]. *Pharmacis chamomillana* Wlsm. Ent. Mo. Mag. XXXIX. 181 (1903)[3].

Hab. WC. ASIA[2]. S. EUROPE[1-2]. N. AFRICA[2-3]—Tunis[2]

—Morocco: Tangier, III. 1885 (*Leech*), 21. IV. 1902 (*Wlsm.*)[3]. Canaries—Tenerife: Miramar, Santa Cruz, 1. I. 1907.

A single specimen of this rare species occurred near Miramar, two miles from Santa Cruz, on January 1st.

This species, as also *elongana* FR. (1724), and *impurana* Mn. (1725), must be removed from *Phalonia* to *Pharmacis*.

VI. TORTRICIDAE.

TORTRICINAE.

59. (221) EPAGOGE Hb.

= *Dichelia* Gn., Stgr-Rbl.

118. (1490) Epagoge constanti Rbl.

Dichelia constanti Rbl. Ann. KK. Hofmus. IX. 17, 85–6 no. 149 (1894)[1]: XXI. 43 no. 184 (1906)[2]: Stgr-Rbl. Cat. Lp. Pal. II. 84 no. 1490 (1901)[3].

Hab. Tenerife[1–3]: La Laguna, ⊕ *Datura stramonium*, excl. V–VI (*Cabrera*)[1].

This is one of the very few species, recorded from Tenerife, which I was unable to find, although I searched on *Datura stramonium*, at La Laguna, in May and June—the time and place of its recorded occurrence.

60. (227) TORTRIX L.

I fear I may be in part responsible for the too-extended use of the geneonym *Pandemis* Hb., having placed in that genus certain South African species possessing a very faint indication of a notch at the base of the antennae: neither in these, nor in any of the Tenerife species with which I am acquainted, is there any sufficient indication of this character to justify their separation from *Tortrix* L. I might have been disposed to place them in *Dipterina* Meyr., separated from *Tortrix* L. by Meyrick on account of the presence of a distinct secondary cell in the forewings, by the stalking of veins 6 and 7 in the hindwings, and by the long ciliation of the ♂ antennae; but an examination of *Dipterina tasmaniana* Wkr. shows that veins 6 and 7 of the hindwings are not truly stalked, although tending to coincidence towards the base, the secondary cell is less strongly indicated than in *Clepsis* Gn. (*rusticana* Tr.), with which it agrees in the long ciliation of the antennae. Meyrick has himself placed *rusticana* in the genus *Tortrix*, evidently regarding the ciliation of the antennæ as merely a question of degree; our Tenerife species, possessing no well-indicated secondary cell, must therefore be included in the older and more generally recognised genus *Tortrix* L.

119. (1542) Tortrix simonyi Rbl.

=† *symonyi* Rbl.

Pandemis simonyi Rbl. Ann. KK. Hofmus. VII. 263–5, 282 no. 40. Pl. **17** · 8 ♂–9 ♀ (1892)[1]. *Pandemis symonyi* Rbl. Ann. KK. Hofmus. IX. 17, 82 no. 145 (1894)[2]: XXI. 43 no. 186 (1906)[3]. *Pandemis simonyi* Stgr-Rbl. Cat. Lp. Pal. II. 87 no. 1542 (1901)[4].

Hab. **Canaries**[1–4]—La Palma[1–3]: Barranco de las Angustias, 900 m., 16–18. VIII. 1889 (*Simony*)[1]—Tenerife[2–3]: Montaña de Guerra, VI. (*Cabrera*)[2]—Gran Canaria[1–3]: (*Richter*)[1].

My series of *persimilana* seems to contain forms agreeing with *simonyi*, but having no specimens from La Palma, I hesitate to unite the two species, as Rebel had both before him when describing *persimilana*.

120. (1543) Tortrix persimilana Rbl.

n. syn.=*mactana* Rbl.

Pandemis persimilana Rbl. Ann. KK. Hofmus. IX. 17, 82 no. 144 (1894)[1]: XI. 117–8, 146 no. 160 (1896)[2]. *Pandemis mactana* Rbl. Ann. KK. Hofmus. XI. 116–7, 146 no. 158. Pl. **3** · 4 ♂ (1896)[3]: XIII. 376, 380 no. 172 (1899)[4]: Stgr-Rbl. Cat. Lp. Pal. II. 87 no. 1544 (1901)[5]. *Pandemis persimilana* Stgr-Rbl. Cat. Lp. Pal. II. 87 no. 1543 (1901)[6]: Ann. KK. Hofmus. XXI. 43 no. 187 (1906)[7]. *Pandemis mactana* Rbl. Ann. KK. Hofmus. XXI. 43 no. 188 (1906)[8].

Hab. **Canaries**[1–8]—Tenerife[1–7]: "? Cafira," 14. II. (*Alluaud*)[3]; Los Silos, 25. II. 1898 (*Hintz*)[4]; Guimar, 2. III – 12. IV. 1907, ⊕ *Rosa banksiae*, 27. II, excl. 23. III. 1907, ⊕ *Rubus fruticosus*, 25. II, excl. 24. III. 1907, ⊕ *Globularia salicina*, 27. III, excl. 12–26. IV. 1907, ⊕ *Pelargonium*, 27. III, excl. 22. IV. 1907, ⊕ *Jasminum odoratissimum*, 27. III, excl. 27. IV. 1907 (*Wlsm.*); Santa Cruz, ⊕ *Coffea arabica*, 1. I, excl. 23. III. 1907 (*Wlsm.*); Toso, 25. III. 1898 (*Hintz*)[4]; IV. 1884 (*Leech*)[1]; Cruz de Afur, 5. IV. 1904 (*Eaton*); Forest de la Mina, 9. IV. 1904 (*Eaton*); Arafo, 13. IV. 1907 (*Wlsm.*); Pedro Gil, ⊕ *Cytisus proliferus*, 19. IV, excl. 8. V. 1907 (*Wlsm.*); Las Mercedes, 29. V. 1907 (*Wlsm.*); Puerto Orotava, 1896 (*Crompton*), ⊕ *Globularia salicina*, 7. V, excl. 29. V. 1907 (*Wlsm.*); La Laguna, 30. V. 1907, ⊕ *Adenocarpus foliolosus*, 18. V, excl. 7–14. VI. 1907, ⊕ *Erica arborea*, 23. V, excl. 13. VI. 1907 (*Wlsm.*)—Gran Canaria[2–4, 7–8]: Las Palmas, 8–11. V. 1895 (*Hedemann*)[2–3].

Comparing the types of *persimilana* Rbl. (60994 ♀, 61000 ♀: Mus. Wlsm.) with a considerable series of bred and captured specimens, and bearing in mind the examples of *Pandemis mactana* Rbl. in Mr. White's collection, at Guimar, I am forced to the conclusion that these names are applied to different varieties of the same species. Many of the ♂♂ agree perfectly with

Rebel's description of *mactana*, although paler forms, less reticulated on the under side of the forewing, also occur: there is however no possible line of demarcation between them. Some very fine fasciated ♀ ♀, with typical *persimilana* ♀ ♀, and typical *mactana* ♂ ♂, were bred from larvae on *Globularia salicina*, at Guimar, in April and May, 12 specimens in all, including a single ♂ bred from the same plant at Puerto Orotava. I have also bred six similar forms from *Adenocarpus foliolosus*, at La Laguna, in June; 1 ♂, in March, on Banksia rose, Guimar; 1 ♂, March, on *Rubus fruticosus*, Guimar; 1 ♀, April, on Geranium, Guimar; 1 ♀, May, on *Cytisus proliferus*, Pedro Gil; 1 ♂, March, on *Schinus molle*, Santa Cruz; 1 ♂, March, from Coffee-plant, in a garden at Miramar, near Santa Cruz; 1 ♀, June, on *Erica arborea*, La Laguna; 1 ♀, April, from *Jasminum odoratissimum*, Guimar; 16 caught specimens make up the series of 42, to which I can add, 2 received from Mr. White, and 6 previously in my cabinet from the late Mr. J. H. Leech, and from Mr. Eaton: 50 in all.

121. (1545) Tortrix bracatana Rbl.

Pandemis bracatana Rbl. Ann. KK. Hofmus. IX. 17, 82–4 no. 146 (1894)[1]: XXI. 43 no. 189 (1906)[2]: Stgr-Rbl. Cat. Lp. Pal. II. 87 no. 1545 (1901)[3].

Hab. Tenerife[1–3]: Agua Garcia, VI. 1892 (*Cabrera*)[1], ⊕ *Viburnum rugosum*, 31. V, excl. 17. VI. 1907 (*Wlsm.*).

A fine and distinct species, of which I have only a single specimen, bred from a larva found rolling the leaves of *Viburnum rugosum* at Agua Garcia; the type was taken in the same locality by Cabrera in 1892.

122. (1594·1) Tortrix canariensis Rbl.

=**subcostana* Rbl. (nec Stn.).

Cacoecia **subcostana* Rbl. Ann. KK. Hofmus. IX. 16, 81–2 no. 143 (1894)[1]. *Tortrix* (**subcostana* Rbl.) Wlsm. Tr. Ent. Soc. Lond. **1894**. 539 (1894)[2]. *Tortrix subcostana* Stn. + *canariensis* Rbl. Ann. KK. Hofmus. XI. 116, 146 no. 157 (1896)[3]: Stgr-Rbl. Cat. Lp. Pal. II. 90 no. 1594[a] (1901)[4].

Hab. **Canaries**[1–4]—Tenerife[1–3]: Guimar, 9. III – 16. IV. 1907 (*Wlsm.*); Las Mercedes, 17. III. 1902, 29. III. 1904 (*Eaton*), 19. V – 7. VI. 1907 (*Wlsm.*); IV. 1885 (*Leech*)[1–2]; Tejina, 7. IV. 1904 (*Eaton*); Arafa, 13. IV. 1907 (*Wlsm.*); Realejo, 7. V. 1907 (*Wlsm.*); Villa Orotava, 14. V. 1907 (*Wlsm.*); La Laguna, 21. V. 1889 (*Krauss*)[1], 23. V – 9. VI. 1907 (*Wlsm.*); Santa Cruz, 25. V. 1889 (*Krauss*)[1]; Tacaronte, 31. V. 1907 (*Wlsm.*).

This is an exceedingly variable species, and at first sight seems very distinct from the larger and more distinct form which I have received from Madeira. A series of 74 specimens, taken in various localities, enables me to separate them satisfactorily: in *subcostana* Stn. the dark fascia is always more oblique, and its inner margin

always less irregular than in *canariensis*. It occurs on high ground among *Hypericum*, at a lower elevation among *Erica arborea*, and lower yet, at La Laguna and elsewhere, among *Rubus*. I was at first disposed to regard the larger specimens, beaten from *Hypericum*, as distinct from those among *Rubus*, but this cannot be maintained.

123. (1596) Tortrix coriacana Rbl.

=**longana* Rbl. (+3 **stratana* Rbl.) nec Hw., nec Z.

Sciaphila **longana* (+3 **stratana*) Rbl. Ann. KK. Hofmus. VII. 265–6, 282 no. 41[3] (1892)[1]. *Heterognomon coriacanus* Rbl. Ann. KK. Hofmus. IX. 17, 84 no. 148 (1894)[2]: XI. 118, 146 no. 163 (1896)[3]: XIII. 376–7, 380 no. 177 (1899)[4]: XXI. 43 no. 191 (1906)[5]: Stgr-Rbl. Cat. Lp. Pal. II. 90 no. 1596 (1901)[6].

Hab. **Canaries** [1–6]—Tenerife [1–5]: Santa Cruz, 21. XII – 16. II. 1907, ⊕ *Psoralea bituminosa*, 5. I, excl. 30. I. 1907, ⊕ *Rhamnus crenulata*, 16. I, excl. 10. II. 1907, ⊕ *Periploca laevigata*, 27. I, excl. 4. III. 1907, ⊕ *Artemisia argentea*, 11. II, excl. 7. III. 1907, ⊕ *Fagonia cretica*, 26. I, excl. 21. II – 10. III. 1907 (*Wlsm.*), 12. V. 1889 (*Krauss*)[2], 1895 (*Hedemann*)[3]; La Laguna, 13. I. 1907 (*Wlsm.*), 23. II – 8. IV. 1904, 17. III. 1902 (*Eaton*), 21. V. 1889 (*Krauss*)[2], 23. V. 1907 (*Wlsm.*); Cafira, 14. II. (*Alluaud*)[3]; Villa Orotava, 19. II. 1907, ⊕ *Rhus coriaria*, 28. IV, excl. 2. V. 1907 (*Wlsm.*); Los Silos, 22. II. 1898 (*Hintz*)[4]; Guimar, 28. II – 14. IV. 1907 (*Wlsm.*), 21. III. 1904 (*Eaton*), ⊕ *Poterium sp.*, 26. II, excl. 18. III. 1907, ⊕ *Rubus fruticosus*, 25. II, excl. 21. III – 4. IV. 1907, ⊕ *Rumex lunatus*, 19. III, excl. 26. IV. 1907, ⊕ *Notochlaena marantae*, 27. II, excl. 31. III. 1907, ⊕ small *Crucifer*, 3. III, excl. 31. III. 1907, ⊕ *Artemisia canariensis*, 19. III, excl. 5–20. IV. 1907, ⊕ *Pyrus malus*, 3. IV, excl. 14. IV, 1907, ⊕ *Psoralea bituminosa*, 1. III, excl. 27. IV. 1907, ⊕ *Cistus monspeliensis*, 8. IV, excl. 6. V. 1907, ⊕ *Phelipaea sp.*, 15. IV, excl. 8. V. 1907 (*Wlsm.*); Puerto Orotava, 13. III. 1904 (*Eaton*), 10–28. IV. 1895 (*Hedemann*)[3], 23. IV – 10. V. 1907, ⊕ *Senecio kleinia*, 26. IV, excl. 21. V. 1907, ⊕ *Ononis sp.*, 27. IV, excl. 8. VI. 1907, ⊕ *Tamarix gallica*, 5. V, excl. 12. VI. 1907 (*Wlsm.*); Tejina, 18. III. 1902 (*Eaton*); IV. 1885 (*Leech*)[2]; Forest de la Mina, 7. IV. 1904 (*Eaton*); Bajomar, ⊕ *Astydamus canariensis*, 22. V, excl. 29. V – 15. VI. 1907, ⊕ *Lotus sp.*, 25. V, excl. 1–17. VI. 1907 (*Wlsm.*); Loma de la Vega, Icod de los Vinos, 3. VIII. 1889 (*Simony*)[1] — Gran Canaria [3–5]: 1895 (*Hedemann*)[3]; Las Palmas, ⊕ *Plocama pendula*, 15. VI, excl. 28. VI. 1907 (*Wlsm.*)—Lanzarote [1, 4–5]: Yaiza, 4. X. 1890 (*Simony*)[1].

Here again we have a species which varies greatly within certain limits, but is easy to recognise. It reminds one at first sight of *canariensis* Rbl., but the wings are more pointed, the costa being somewhat less arched, and the termen more oblique. I have bred

it from *Psoralea*, *Artemisia*, *Rubus*, *Fagonia*, *Rhus*, *Rhamnus*, *Notochlaena*, *Astydamia*, *Cistus*, *Tamarix*, *Ononis*, *Lotus*, *Senecio*, *Poterium*, *Rumex*, *Periploca*, dry aborted apples, small *Cruciferae*, and even from *Phelipaea*.

Heterognomon hyeranus Rbl. Ann. KK. Hofmus. IX. 17, 84 no. 147 (1894)[1]. *Dichelia hyerana* Rbl. Ann. KK. Hofmus. XXI. 43 no. 185 (1906)[2].

Hab. TENERIFE[1-2]: La Laguna, V (*Cabrera*)[1].

I have many ♀ ♀ of *Tortrix coriacana* Rbl. which greatly resemble Millière's species in appearance, and am strongly convinced that the condition of the specimen examined and recorded by Rebel must have misled him. The reference to *Dichelia* (when the specimen was not available for study of neuration) can hardly be held to confirm the original determination, in the absence of information as to whether veins 7 and 8 were separate or stalked in the specimen recorded. It will probably be found that *hyerana* does not occur in Tenerife.

[228. CNEPHASIA Crt.]

124. (1608) TORTRIX LONGANA Hw.

=**segetana* Rbl. (nec Z.); =**fragosana* Rbl. (nec Z.)[5].

Tortrix longana Hw. Lp. Br. 463–4 no. 221 (1811)[1]. *Sciaphila longana* (+*ictericana* Rbl., +**stratana* Rbl.) Rbl. Ann. KK. Hofmus. VII. 265–6, 282 no. 41[1-2] (1892)[2]: IX. 17, 86 no. 150 (1894)[3]. *Sciaphila* **fragosana* Rbl. Ann. KK. Hofmus. IX. 17, 86 no. 151 (1894)[4]. *Sciaphila longana* Rbl. Ann. KK. Hofmus. XI. 119, 146 no. 165 (1896)[5]. *Cnephasia longana* Stgr-Rbl. Cat. Lp. Pal. II. 91 no. 1608 (1901)[6]: Rbl. Ann. KK. Hofmus. XXI. 37, 43 no. 192 (1906)[7].

Hab. WC. ASIA[6]. EUROPE[1-7]—CORSICA: Ile Rousse, 5. VI. 1898 (*Wlsm.*).—S. SPAIN: MALAGA: Cala Moral, 4. V. 1901 (*Wlsm.*): CADIZ: Cadiz, 14–15. V. 1902 (*Wlsm.*)—GIBRALTAR: ⊕ *Stachys circinata*, 2. III, excl. 9. V. 1901 (*Wlsm.*). N. AFRICA—ALGERIA: Constantine, 10. V. 1895; 14–15. VI. 1894 (*Eaton*). **Canaries**[2-7]—TENERIFE[3-5, 7]: Santa Cruz, 26. I – 11. II. 1907, ⊕ *Fagonia cretica*, 26. I, excl. 28. II. 1907, ⊕ *Stachys sp.*, 31. I, excl. 5. III. 1907, ⊕ *Argyranthemum pinnatifidum*, 10. II, excl. 2. IV. 1907 (*Wlsm.*), 3. IV. 1904 (*Eaton*), 10. IV – 4. V. 1895 (*Hedemann*)[5], 3. V – 1. VI. 1889 (*Krauss*)[3]; Guimar, 1906 (*White*)[7], 4. III – 16. IV. 1907, ⊕ *Psoralea bituminosa*, 1. III, excl. 10. IV. 1907 (*Wlsm.*); IV. 1885 (*Leech*)[4]; Puerto Orotava, 12–24. IV. 1895 (*Hedemann*)[5], 10. V. 1907 (*Wlsm.*); La Laguna, 16. III. 1902, 26. III – 6. IV. 1904 (*Eaton*), 2. V. 1907 (*Wlsm.*) —GRAN CANARIA[2-3, 5, 7]: (*Richter*)[2].

Very common everywhere, and exceedingly variable, ranging from unicolorous chalk-white, through various gradations of greyish ochreous and brownish grey, to slightly, and conspicuously fasciated forms, more or less speckled between the fasciae. I bred it from *Argyranthemum pinnatifidum*, from *Fagonia cretica*, from *Psoralea bituminosa*, and from *Stachys sp.*: a series of thirty-two selected specimens was preserved, in addition to several specimens received from the late Mr. J. H. Leech, and from Mr. Eaton.

OLETHREUTINAE.

61. (247) ACROCLITA Ldr.

125. (1966·01) Acroclita guanchana, sp. n. (Plate LIII. fig. 5.)

Antennae hoary greyish. *Palpi* porrect, slightly dependent, stretching the length of the head beyond it, densely clothed, especially above, terminal joint short, smooth; hoary grey, fuscous on the outer sides. *Head* hoary greyish, with some mixture of reddish brown scales. *Thorax* reddish brown. *Forewings* elongate, narrow, costa moderately arched, termen oblique, sinuate, tornus evenly rounded; tawny reddish brown, with some black scaling which is sometimes reduced to a few marginal specks, but in some varieties forms an elongate series of streaks or spots, more or less connected, or detached, commencing at the middle of the base, exhibited again along the cell beyond it to the apex; in one dark variety (99115) these streaks form an almost continuous line, with a diverging point along the fold; in another, paler, and faintly mottled form (99116) they are broken into three separate streaks, one from the base along the first half of the fold, a shorter one toward the end of the cell, and an outer one beyond the cell to the apex, with two minute spots below the intermediate spaces and one near the base of the dorsum; in the paler varieties there is also some indication of lighter geminated costal streaks, with alternating faint shade-spots; cilia slightly paler than the wing, with a distinctly paler line along their base, followed by parallel shade-lines running through them. *Exp. al.* 12–15 mm. *Hindwings* broader than the forewings, with oblique, sinuate, termen; grey with a slight rosy tinge; cilia paler, with a faint shade-line a little beyond their paler base. *Abdomen* and *Legs* griseous, varying to subochraceous; hind tarsi faintly shaded, except at the joints.

Type ♂ (99115); ♀ (99118); var. ♂ *PT.* (99116–7) Mus. Wlsm.

Hab. Tenerife: Santa Cruz, 3000 ft., 3. I. 1907, ⊕ *Hypericum grandifolium*, 3. I, excl. 29–31. I. 1907 (*Wlsm.*); Villa Orotava, 19. II. 1907 (*Wlsm.*); Forest de la Mina, 7. IV. 1904 (*Eaton*); Guimar, 10. IV. 1907, ⊕ *Hypericum grandifolium*, 25. II, excl. 7. IV – 4. V. 1907 (*Wlsm.*); Las Mercedes, 14. V. 1907 (*Wlsm.*); Tacaronte, 31. V. 1907 (*Wlsm.*). Fifteen specimens.

The larva contorts the leading leaves of *Hypericum grandifolium*: I met with it first at the Barranco del Bufadero, near Santa Cruz, the beginning of January, and bred specimens from the end of that month till the beginning of May.

126. (1966) Acroclita subsequana HS.

126+a. (1966+a) subsequana HS.+subsequana HS.

=*consequana* HS.[1]; =*littorana* Cnst.

Semasia subsequana HS. SB. Schm. Eur. IV. 247 no. 337 (1851)[1]. *Tortrix consequana* HS. SB. Schm. Eur. IV. Pl. 59 · 423 (1854)[2]. *Acroclita consequana* Stgr-Rbl. Cat. Lp. Pal. II. 110 no. 1966 (1901)[3].

Hab. EUROPE[1-3]: ⊕ *Euphorbia spp.*

126+b. (1966+b) subsequana HS.+convallensis, var. n. (an sp. n. ?).

=**littorana* Rbl. (nec Cnst.).

Acroclita consequana HS.+*littorana* Rbl. Ann. K.K. Hofmus. VII. 266, 282 no. 42 (1892)[1]: XI. 121, 146 no. 169 (1896)[2]: XXI. 43 no. 196 (1906)[3].

Hab. **Canaries**[1-3]—Tenerife[2-3]: Santa Cruz, 25. I. 1907, ⊕ *Euphorbia regis-jubae*, 27. XII, excl. 28–31. I. 1907 (*Wlsm.*); Guimar, 6. III – 10. IV. 1907 (*Wlsm.*); IV. 1884 (*Leech*); Puerto Orotava, 18. IV. 1895, ⊕ *Euphorbia arborescens*, excl. 10–13. V. 1895 (*Hedemann*)[2] — Gran Canaria[1]: (*Richter*)[1] — Montaña Clara[1-3]: 238 m., 8. IX. 1890 (*Simony*)[1].

I did not meet with any form of *Acroclita* that can well be compared with *littorana* Cnst., which is merely a small pale variety of the ordinary South European *subsequana* HS. There is however one point of difference by which my Tenerife series of twenty-three specimens might be separated from European specimens: the basal patch always tends to throw out a pointed projection along the dorsum, they also range to a much larger average size (*exp. al.* 13–22 mm.), and I propose the neonym **convallensis** (var., an sp. ?), to distingnish them.

Type ♂ (99171); ♀ (99172) Mus. Wlsm.

127. (1966·1) Acroclita sonchana, sp. n. (Plate LIII. fig. 3.)

Antennae hoary, with blackish annulations, sometimes entirely suffused with black. *Palpi* whitish, thickly sprinkled with dark fuscous externally; sometimes fuscous throughout. *Head* dirty white, varying to dark fuscous. *Thorax* whitish, or dark fuscous; sometimes with chestnut-brown tegulae. *Forewings* dark fuscous, sprinkled and mottled with shades of chestnut-brown, with some paler spaces; a dark basal patch, extending to one-third, projects outwardly above the fold receding to the costa and nearly to the dorsum; this is followed by an irregular fascia, running from the

middle of the costa to the dorsum before the tornus, throwing a projection inward from its middle and slightly bulging outward above its lower extremity; beyond it is a triangular shade-patch, more or less furcate to the costa, the apex and termen being also narrowly shaded; in some specimens (99110) the intermediate spaces between these markings, as well as the dorsal portion of the basal patch are white, sparsely sprinkled with brownish scales; in other specimens (99109) they are entirely suffused with dark steely greyish fuscous, paler only at the edges of the dark markings; about four pairs of geminate costal streaks are visible on the outer half of the wing; cilia fuscous, with a more or less defined shade-line along their base. *Exp. al.* 14–17 mm. *Hindwings* brownish cinereous, with a slender pale line along the base of the rather more smoky cinereous cilia; in the paler specimens the hindwings are also of a lighter shade. *Abdomen* and *Legs* corresponding to the hindwings in colour; tarsi darkly shaded between the pale joints.

Type ♀ (99108); ♂ (99109); ⊕ (99111); var. ♀ *PT.* (99110) Mus. Wlsm.

Hab. Tenerife: Guimar, 7. IV. 1907, ⊕ *Sonchus gummifer*, 9–27. III, excl. 4. V – 12. VI. 1907; Puerto Orotava, ⊕ *Sonchus gummifer*, 23. IV, excl. 13. V – 19. VI. 1907, ⊕ *Sonchus leptocephalus*, 22. IV – 11. V, excl. 5. VI – 2. VIII. 1907. Fifteen specimens.

The larva, which is dull greyish, turning to bright red before pupation, feeds on the leaves outside the stems of *Sonchus gummifer* and *leptocephalus*. The moth is extremely variable, some specimens being almost black, on which the pattern, although easily traceable and very consistent, is much obscured, while in others all the intermediate spaces being white, the darker markings stand out very conspicuously. As compared with *consequana* HS., it is somewhat similar in general design, but the outer fascia is less oblique and less prominently angulated outward below the middle, while the space between this and the apex is more occupied by darker patches and the costal streaks are less confluent and less oblique.

62. (243) POLYCHROSIS Rgt.

128. (1954·1) Polychrosis neptunia, sp. n. (Plate LIII. fig. 1.)

Antennae ochreous, varied with black above. *Palpi* ochreous. *Head* and *Thorax* ochreous, varying to reddish fuscous in some specimens. *Forewings* ochreous, varying to brownish ochreous, and even to reddish fuscous, the darker shades prevailing especially towards the dorsum; the costa is delicately speckled with fuscous throughout; before the middle is an outwardly oblique, greyish white fascia, somewhat contracted on the fold, terminating on the middle of the dorsum, its upper half slightly reticulated, or speckled, with the ochreous ground-colour; beyond it a narrow dark space separates it from a broad, irregular, second fascia of the same

colour, tending to become widely furcate toward the costa, and narrowly furcate where it is inverted to the dorsum before the tornus; the outer portion of this fascia is usually joined to a sinuate streak, which, cutting off the dark apex of the wing, descends to the middle of the termen; these markings all contain more or less, short, parallel, wavy streaks of the darker ground-colour; cilia varying from ochreous to greyish, sometimes slightly mottled. *Exp. al.* 9–12 mm. *Hindwings* pale brownish grey; cilia pale cinereous with a slender shade-line running through them near their base. *Abdomen* greyish fuscous. *Legs* pale brownish cinereous, the tarsi very faintly spotted.

Type ♀ (99106); ♂ (99107) ex ⊕ *Statice*, Mus. Wlsm.

Hab. TENERIFE: Guimar, 17. III. 1907, ⊕ *Frankenia ericifolia*, 6. III, excl. 9. III – 22. IV. 1907, ⊕ *Statice pectinata*, 6. III, excl. 20. III – 18. IV. 1907 (*Wlsm.*); Tejina, 18. III. 1902 (*Eaton*); Puerto Orotava, 21. IV – 14. V. 1907, ⊕ *Frankenia ericifolia*, 21. IV, excl. 3–4. V. 1907, ⊕ *Statice pectinata*, 21. IV, excl. 26. V – 7. VI. 1907 (*Wlsm.*). Thirty-two specimens (13 ex *Statice*, 10 ex *Frankenia*, 9 captured).

The larva feeds on *Statice pectinata* and *Frankenia ericifolia*, at Guimar and Puerto Orotava, from both of which plants I have bred it.

Most nearly allied, perhaps, to *limoniana* Mill., but differing in the markings being intermediate between those of that species and *botrana* S-D.

63. (255) BACTRA Stph.

129. (2017) BACTRA LANCEOLANA Hb.

Tortrix lancealana Hb. Smlg. Eur. Schm. VII. Pl. **13** · 80 (1797)[1]. *Ancylis lanceolana* Hb. Verz. Schm. 376 no. 3614 (1826)[2]. *Aphelia lanceolana* Wlsm. Tr. Ent. Soc. Lond. **1881**. 231–2 (1881)[3]; Meyr. Pr. Lin. Soc. NSW. VI. 651–2 (1881)[4]. *Bactra lanceolana* Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 540 no. 9 (1894)[5]; Rbl. Ann. KK. Hofmus. IX. 17, 86–7 no. 152 (1894)[6]: XI. 120–1, 146 no. 168 (1896)[7]: XXI. 43 no. 197 (1906)[8]; Wlsm. Pr. Z. Soc. Lond. **1897**. 121–2 no. 162 (1897)[9]: Ann-Mag. NH. (7 s.). VI. 333–4 no. 1006 (1900)[10]: Stgr-Rbl. Cat. Lp. Pal. II. 113 no. 2017 (1901)[11]; Frnld. Bull. US. Nat. Mus. **52**. 449 no. 5006 (1902)[12].

Hab. EUROPE[1–2, 11]: ⊕*Juncus*, *Cyperus*[6]. AFRICA[3]. ASIA[10]. MALAYSIA[10]. AUSTRALIA[4]. NEW ZEALAND[4]. S. AMERICA[9]. N. AMERICA[12]. W. INDIES[9]. **Madeiras**[5]—MADEIRA[5]: San Antonio da Serra (*Wollaston*)[5]; Machico, 23. IV. 1904 (*Eaton*). **Canaries**[6–8]—TENERIFE[6–8]: Guimar, 4. III – 7. IV. 1907 (*Wlsm.*); IV. 1884 (*Leech*); Puerto Orotava, 14. V. 1907 (*Wlsm.*); 1895 (*Hedemann*)[7]; Santa Cruz, 26. V. 1889 (*Krauss*)[6]—GRAN CANARIA[7]: Las Palmas, 7. V. 1895 (*Hedemann*)[7].

The examples of this species which I met with in Tenerife could

by no possibility have fed upon rushes; they were taken on an absolutely dry spot, in a barranco near Orotava, where no rushes could be found. I also took three specimens at Guimar. Mr. Eaton notes it as taken amongst *Carex*, in a wet place, near Machico (Madeira).

64. (241) RHYACIONIA Hb.

RHYACIONIA Hb. Verz. Schm. 379 (1826); Wlsm. Ann-Mag. NH. (7 s.). VII. 124 (1900); =**EVETRIA* (Hb.) Stgr-Rbl. Cat. Lp. Pal. II. 102 no. 241 (1901).

130. (1845) RHYACIONIA WALSINGHAMI Rbl.

Retinia walsinghami Rbl. Ann. KK. Hofmus. XI. 119–20, 146 no. 167, Pl. **3**· 6 ♀ (1896)[1]. *Evetria walsinghami* Stgr-Rbl. Cat. Lp. Pal. 102 no. 1845 (1901)[2]: Ann. KK. Hofmus. XXI. 43 no. 194 (1906)[3].

Hab. TENERIFE[1-3]: Puerto Orotava, ⊕ *Pinus canariensis*, 18. II, excl. 3. III – 10. IV. 1907 (*Wlsm.*), 11–14. IV. 1895 (*Hedemann*)[1], 21–29. IV. 1907 (*Wlsm.*).

A rare species, not met with by Mr. Eaton, and represented, so far as I am aware, only by von Hedemann's three original specimens, and one or two in Mr. White's collection. During a lucky half-hour, spent in the garden of the Hotel Humboldt, during a flying visit to Orotava, on the 18th of February, I found three pupae in the shoots of *Pinus canariensis*, all of which produced the moths in March and April. During a subsequent visit three other specimens were taken on the wing, in the same place, from the 21st to 29th of April. I have observed traces of the larvae in the pine-forests, to the south of Pedro Gil, but it does not appear to occur to the west of Guimar, where I searched the pines unsuccessfully.

65. (248) CROCIDOSEMA Z.

131. (1968) CROCIDOSEMA PLEBEIANA Z.

n. syn.=*obscura* E. Wlstn.; =*blackburnii* Btl.[7]; =**signatana* Wlsm. (nec Dgl.).

Crocidosema plebejana Z. Isis, **1847**. 721–2 no. 283 (1847)[1]. *Steganoptycha obscura* E. Wlstn. Ann-Mag. NH. (5 s.). III. 341 (1879)[2]: Lp. St. Helena 28–8 (1879)[2]. *Crocidosema plebeiana* Meyr. Pr. Lin. Soc. N.S.W. VI. 659–60 (1881)[3]. *Steganoptycha* **signatana* Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 541 no. 14 (1894)[4]. *Crocidosema plebeiana* Wlsm. Pr. Z. Soc. Lond. **1897**. 127 no. 174 (1897)[5]; Stgr-Rbl. Cat. Lp. Pal. II. 110 no. 1968 (1901)[6]; Wlsm. Fn. Hawaii. V. 675–6, 736, 752 no. 366, Pl. **10**· 15 (1907)[7].

Hab. ASIA[6]—CEYLON: Pundaloya, 4000 ft., II. 1890 (*Green*)—PALESTINE: (*Tristram*)—SYRIA[6]. S-C. EUROPE[1,6]: ⊕ *Althea rosea*[5]; *Lavatera arborea*[5]—FRANCE: Mentone, 13. III. 1893

(*Wlsm.*)—Spain: malaga: Malaga, 8. IV. 1901 (*Wlsm.*). N. AFRICA—Morocco: Tangier, 13. IV. 1901, 12. V. 1902 (*Wlsm.*) —Algeria: Biskra, 5–13. III. 1903 (*Wlsm.*). **Madeiras** [4]— Madeira [4]: The Mount (*Wollaston*) [4]. **Canaries**—Tenerife: Guimar, 13. III. 1907; Puerto Orotava, ⊕ *Malva parviflora*, 29. IV, excl. 11–26. V. 1907; La Laguna, 23. V. 1907; Santa Cruz, 25. V. 1907 (*Wlsm.*). **St. Helena** [2]: Cleugh's Plain (*E. Wollaston*) [2]. WEST INDIES [5]. CENTRAL AMERICA [6]. SOUTH AMERICA [5]. AUSTRALIA [3]. HAWAIIA [7].

A single specimen (13575), in poor condition, to which I wrongly attributed the name "*Steganoptycha signatana* Dgl." (*l. c.* **4**), was collected in Madeira by Wollaston. Having now met with *Crocidosema plebeiana* at Santa Cruz, La Laguna, and Guimar, (where I also saw it in Mr. White's collection), and having bred two specimens from larvae feeding on *Malva parviflora*, at Puerto Orotava, I take this opportunity of correcting the previous error, while recording the species for the first time from Tenerife, and extending its range from Ceylon to St. Helena. I have examined the type of *Steganoptycha obscura* E. Wlstn. in the British Museum and find it to be *Crocidosema plebeiana* Z., a ♂ with the characteristic tuft.

66. (260·01) STREPSICRATES Meyr.

§ *Strepsiceros* Meyr. Pr. Lin. Soc. NSW. VI. 678–9 (1882). Strepsicrates Meyr. Tr. NZ. Inst. XX. 73 (1887); Wlsm. Pr. Z. Soc. Lond. **1891**. 506–7 (1892).

132. (2067·01) Strepsicrates fenestrata, sp. n.

Antennae missing, except sufficient of the compressed, whitish cinereous, basal joints to identify the genus. *Palpi* erect, with very short terminal joint; much worn, but apparently fuscous externally. *Head* whitish cinereous. *Thorax* whitish cinereous along the centre, brownish fuscous at the sides. *Forewings* with a very deep costal fold, reaching to beyond the middle of the wing; dark brownish fuscous, slightly mottled with whitish cinereous, tending to indicate oblique, but slightly curved, transverse lines before the apex, reaching from costa to termen, and one reaching the dorsum before the tornus, but this latter appears to form the outer margin of the more intensely dark colouring which pervades the wing thence to the base, except along the dorsum; here is a large reduplicated patch of whitish cinereous, commencing at one-fourth, indented at its upper edge about the middle, and thence extending again nearly to the outer end of the fold; there is also a pale patch at the tornus—these are slightly sprinkled with pale brownish fuscous scales, usually in the form of narrow dorsal streaks; the cilia appear to be mottled with darker and paler alternations at the base. *Exp. al.* 15 mm. *Hindwings* semitransparent, subiridescent, brownish

grey, with a conspicuous scaleless fenestrum below the base of the cubitus, reaching nearly to the origin of vein 2; cilia brownish grey. *Abdomen* brownish grey; anal tuft paler. *Legs* pale brownish cinereous.

Type ♂ (13525) Mus. Wlsm.

Hab. Tenerife: Guimar (*White*).

A single ♂, given to me by Mr. White, is in extremely poor condition; I should certainly not have described it had it not been for the peculiar character of the fenestrum in the hindwing. It was taken from a series in his collection, which included more than one species. I certainly recognised *Crocidosema plebeiana* Z. among them, and there were others similar to the one here described.

(260) EUCOSMA Hb.

=*Epiblema* Hb., Stgr-Rbl.

(2090·1) Eucosma sp. 198 Rbl.

Epiblema sp. Rbl. Ann. KK. Hofmus. XXI. 37–8, 43 no. 198 (1906)[1].

Hab. Tenerife[1]: 1905, 1906 (*White*)[1].

Unnamed specimens in Mr. White's collection; not in good enough condition for identification. I did not meet with the genus *Eucosma* in Tenerife.

67. (257) THIODIA Hb.

=*Semasia* Stph., Stgr-Rbl.

133. (1980·1) Thiodia glandulosana, sp. n. (Plate LIII. fig. 2.)

Antennae brownish cinereous. *Palpi* varying from ochraceous to brownish fuscous. *Head* and *Thorax* brownish fuscous above; the tegulae paler, sometimes ochraceous. *Forewings* with the costa evenly arched, termen slightly sinuate; ochraceous, more or less suffused with brownish, or dark fuscous scaling, the markings indicated by black patches; in an ordinary variety the wing is much mottled and traversed by sinuous streaks, the costa being streaked and spotted throughout; a strong dorsal patch is indicated, coming from the base below the fold, angulated above the fold at one-third, and produced along the more or less spotted dorsum to an obliquely erect antetornal patch of the same colour, terminating a little below half the width of the wing; in some varieties a curved band of similar blackish patches descends from the middle of the costa, bending outward through the end of the cell, and attenuated to the apex, but this is sometimes quite obsolete; a narrow blackish line, broken into spots above the tornus, follows the termen before the ochraceous cilia, which are mottled with brown and blackish above the middle and at the apex, but always with a pale line along their base; in some varieties the upper edge of the dorsal patch and the lower half of

the termen, as well as the base of the cilia about the tornus, are touched with shining white, some steely grey scales appearing on the dark patch and before the apex of the wing. *Exp. al.* 13–21 mm. *Hindwings* greyish fuscous; cilia paler, with a shade-line running through them. *Abdomen* greyish fuscous, anal tuft and *Legs* inclining to ochreous; hind tarsi faintly barred.

Type ♂ (99114); ♀ (99112); var. ♀ *pt.* (99113) Mus. Wlsm.

Hab. TENERIFE: Las Mercedes, 30. III. 1904 (*Eaton*), 19–29. V. 1907 (*Wlsm.*); La Laguna, ⊕ *Rhamnus glandulosa*, 19. V, excl. 6–23. VI. 1907 (*Wlsm.*). Thirty specimens.

The larva rolls the leaves of *Rhamnus glandulosa* and is common between La Laguna and Tegeste, and in the Mercedes Forest. It is an extremely variable species allied to *signatana* Dgl.

68. (261) LASPEYRESIA Hb.

=§ *GRAPHOLITHA* Tr., Stgr-Rbl. (nec Hb.).

134. (2168) LASPEYRESIA ADENOCARPI Rgt.

Grapholitha adenocarpi Rgt. Bull. Soc. Ent. Fr. XLIV. (5 s. V: **1875**). p. lxxiii no. 5 (1875)[1]: Ann. Soc. Ent. Fr. XLV. (5 s. VI: **1876**). 406–8 no. 4. Pl. **6**·4 (1876[2]); Stgr-Rbl. Cat. Lp. Pal. II. 121 no. 2168 (1901)[3].

Hab. WC. ASIA—HALEB: Shar Devesy, 1893 (*Nat. Coll.*: *Leech*). S. EUROPE—SW. FRANCE: Dax, ⊕ *Adenocarpus parvifolius*[1–2], *Sarrothamnus scoparius*[2], excl. VI–IX[2]—S. SPAIN: CADIZ: Chiclana, 25. II. 1901: MALAGA: Malaga, 13. III. 1901: GRANADA: Granada, 5. V – 14. VI. 1901 (*Wlsm.*). **Canaries**—TENERIFE: IV. 1884 (*Leech*).

Two specimens were taken in Tenerife, in April 1884, by the late Mr. J. H. Leech, who gave them to me the following year. I did not meet with this species.

135. (2188) LASPEYRESIA NEGATANA Rbl.

=**salvana* Rbl. (nec Stgr.).

Grapholitha (*Phthoroblastis*) ? **salvana* Rbl. Ann. KK. Hofmus. IX. 17, 88 no. 155 (1894)[1]. *Grapholitha negatana* Rbl. Ann. KK. Hofmus. XI. 121–2, 146 no. 171, Pl. **3**·8 ♂ (1896)[2]: XXI. 43 no. 199 (1906)[3]: Stgr-Rbl. Cat. Lp. Pal. II. 122 no. 2188 (1901)[4].

Hab. TENERIFE[1–4]: La Laguna, 16. III. 1902 (*Eaton*), 30. V – 9. VI. 1907 (*Wlsm.*); Las Mercedes, 29. III. 1904 (*Eaton*); IV. 1884 (*Leech*)[1]; Guimar, 6. IV. 1907 (*Wlsm.*); Puerto Orotava, 14. IV. 1895 (*Hedemann*)[2].

Found flying somewhat plentifully, on one occasion only, about *Adenocarpus foliolosus*, above Guimar, in the direction of the Barranco del Rio, on April 6th; found again sparingly at La Laguna, at the end of May and the beginning of June.

69. (264) CYDIA Hb.

= *Carpocapsa* Tr., Stgr-Rbl.

136. (2257) Cydia pomonella L.

136+a (2257+a) pomonella L.+pomonella L.

Phalaena Tinea pomonella L. Syst. Nat. (ed. X). I. 538 no. 270 (1758)[1]. *Carpocapsa pomonella* Stn., Godman's NH. Azores 106 no. 27 (1870)[2]; Meyr. Pr. Lin. Soc. NSW. VI. 657. (1881)[3]; Slngrld. Cornell Univ. Agr. Exp. Stn. Ent. Div. Bull. **142**. 3–60, fig. 126–146 (1898)[4]. *Cydia pomonella* Wlsm. Ann-Mag. NH. (7 s.). VI. 435 no. 1181 (1900)[5]. *Carpocapsa pomonella* Stgr-Rbl. Cat. Lp. Pal. II. 125–6 no. 2257 (1901)[6]. *Cydia pomonella* Frnld. Bull. US. Nat. Mus. **52**. 471 no. 5296 (1902)[7].

Hab. ASIA[5–6]. EUROPE[1–7]. AFRICA[4–6]. **Azores**[2]—Terceira: (*Godman*)[2]. N–S. AMERICA[4–7]. AUSTRALIA[3]. NEW ZEALAND[3].

⊕ Apples, and other fruits, Walnuts, etc.

136+b (2257+b) pomonella L. + putaminana Stgr.

Carpocapsa putaminana Stgr. Stett. Ent. Ztg. XX. 232 no. 56 (1859)[1]. *Carpocapsa pomonella* L. + *putaminana* Stgr-Rbl. Cat. Lp. Pal. II. 126 no. 2257[a] (1901)[2]: Rbl. Ann. KK. Hofmus. XXI. 38, 44 no. 201 (1906)[3].

Hab. WC. ASIA[2]. S. EUROPE[1–2]. **Canaries**[3]—Tenerife[3]: 1905 (*White*)[3].

I did not meet with this species: the typical form was recorded in 1870 as having been taken in the Azores.

70. (261·1) EUCELIS Hb.

C–137. (2197) Eucelis maderae Wlstn.

Ephippiphora maderae Wlstn. Ann-Mag. NH. (3 s.). I. 120 (1858)[1]. *Grapholita maderae* Wkr. Cat. Lp. BM. XXX. 990 (1864)[2]. *Grapholitha maderae* Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 540 no. 11 (1894)[3]; Rbl. Ann. KK. Hofmus. IX. 17, 87–8 no. 154 (1894)[4]: XI. 121, 146 no. 170. Pl. **3**·8 ♂ (1896)[5]: XXI. 44 no. 200 (1906)[6]: Stgr-Rbl. Cat. Lp. Pal. II. 122 no. 2197 (1901)[7]: *Eucelis maderae* Wlsm. Ent. Mo. Mag. XXXIX. 214 (1903)[8].

Type ♀ (no. XVIII) Mus. Br.

Hab. **Madeiras**[1–5, 8]—Madeira[1–5]: The Mount (*Wollaston*)[3], Monte, 1100 ft., 6. III. 1902 (*Eaton*); Funchal (*Wollaston*)[3], 14. IV. 1904 (*Eaton*); Caniçal, 21. IV. 1904 (*Eaton*); V. 1886 (*Leech*)[4]. **Canaries**[3–7]—Tenerife[3–7]: Santa Cruz, 10. I. 1907 (*Wlsm.*); Guimar, 4. III – 4. IV. 1907 (*Wlsm.*); Puerto Orotava, 16–22. IV. 1895 (*Hedemann*)[5], 26. IV. 1907 (*Wlsm.*); IV. 1884 (*Leech*)[4]; Realejo, 25. IV. 1895 (*Hedemann*)[5].

Taken at Santa Cruz, Orotava, and Guimar, in January, March, and April, but not common.

138. (2197·2) Eucelis marrubiana, sp. n. (Plate LIII. fig. 4.)

= **indusiana* Rbl. (nec Z.).

Polychrosis? indusiana Rbl. Ann. KK. Hofmus. XXI. 37, 43 no. 195 (1906)[1].

Antennae pale brownish grey. *Palpi* hoary grey, sprinkled with fuscous. *Head* and *Thorax* hoary grey, with some fuscous speckling; the latter with a slight, blackish-sprinkled, thoracic tuft posteriorly. *Forewings* greyish white, with pale olivaceous brownish suffusion, tending to indicate two transverse fasciae, one at one-third, bounding the outer side of an obscurely speckled and shaded basal patch, the other, in the middle, accompanied on its outer side by small spots of fuscous and blackish scaling, the intermediate pale space contains a narrow fluctuate line parallel to the equally sinuate outer edge of the first fascia; beyond the middle of the wing some blackish scales are sparsely sprinkled below the middle, near the central fascia, and again in a patch between the upper angle of the cell and the apex, this patch containing three or four black dots; the termen is narrowly shaded with olivaceous brownish, a narrow black line preceding the cilia; along the costa is a series of outwardly oblique brownish streaks, of varying sizes, with more or less sprinkling of black scales, some short dark streaks also along the dorsum; cilia greyish white, delicately sprinkled and shaded with brown and black. *Exp. al.* 8·5–13 mm. *Hindwings* brownish grey; cilia shining, paler, with a shade-line near their base. *Abdomen* hoary griseous. *Legs* hoary, the tarsi spotted above with fuscous.

Type ♀ (99051); ♂ (99052) *Guimar*, Mus. Wlsm.

Hab. S. France: Monte Carlo, 1. VI. 1889 (*Wlsm.*)—S. Spain: Malaga: Malaga, 29. IV – 2. V. 1901 (*Wlsm.*). **Canaries**[1]—Tenerife[1]: 1905 (*White*)[1]; Guimar, 4–25. III. 1907, ⊕ *Marrubium vulgare*, 14. III, excl. 21–24. III. 1907 (*Wlsm.*). Nineteen specimens.

Taken, and bred; very common on the top of the hill west of Guimar. The larva feeds on the seeds of *Marrubium*, the empty pupa-cases protruding conspicuously from the dry seed-vessels of the previous year.

This is the species which stands in Mr. White's collection, named by Prof. Rebel, "*Polychrosis? indusiana* Z." In appearance it is undoubtedly extremely similar to *Polychrosis porrectana* Z., next to which Rebel (Stgr-Rbl. Cat. Lp. Pal. II. 109), following Zeller, places *indusiana*. The true *indusiana* Z. is however quite unlike *marrubiana* and *porrectana*. Anyone seeing the type of *indusiana* would at once place it next to *staticeana* Mill., from which indeed I am quite unable to separate it, and there is no doubt that Millière's name must fall as a synonym.

The following correction should be made in the European Lists :—

(1957) POLYCHROSIS INDUSIANA Z.

n. syn.=*staticeana* Mill.

Sericoris indusiana Z. Isis **1847**. 667 no. 274[1]. *Penthina indusiana* HS. SB. Schm. Eur. IV. 232–3 no. 292 (1851), Pl. **50**·353 (1849)[2]. *Lobesia staticeana* Mill. Ic. Chen-Lp. II. 430–2. Pl. **95**·9–14 (1868)[3]. *Polychrosis staticeana* Stgr-Rbl. Cat. Lp. Pal. II. 109 no. 1957 (1901)[4]. *Polychrosis indusiana* Stgr-Rbl. Cat. Lp. Pal. II. 109 no. 1959 (1901)[5].

Hab. S. EUROPE[1–5]—SICILY: Catania, 3. VII. 1844 (*Zeller*)[1–2]—S. FRANCE[3–4]: ⊕ *Statice cordata*[3].

VII. TINEIDAE.

71. (435) STIGMELLA Schrank.

n. syn.=NEPTICULA Hdn., Z.; =**MICROSETIA* (Stph.) Kby. (nec Stph-Wstwd.).

Type 1. *Phalaena Tinea anomalella* Goeze (Schrank 1802).

STIGMELLA Schrank Fn. Boica II. (2). 169 (1802).
1 (Type) *anomalella* Goeze [=*rosella* Schrank Fn. Boica II. (2). 139 no. 1890 (1802)].

When describing the genus *Stigmella*, Schrank inadvertently omitted to give the cross-reference to his type, which should have read thus :—

"Hieher gehört :
1. Stigmella rosella.
Tinea rosella *meiner Fauna n.* 1890."

It is however obvious that his remark "Ich meyne, dass die mir nicht hinlänglich bekannte Motte, welche die Rosenblätter gangweise minirt, hieher gehöre", refers to *rosella* Schrank (Rosenblatt G. 1890), having its "*Wohnort*: unter der Oberhaut der Rosenblätter, welche die Raupe gangweise minirt."

Schrank regarded his species as identical with that figured by Degeer (I. Pl. **31**·13–21), to which the name *anomalella* was given by Goeze, and Tutt [NH. Br. Lp. I. 206 (1899)] confirms Schrank's identification. It is therefore evident that *Stigmella* Schrank is the oldest geneonym for species hitherto placed in *Nepticula*.

Type 2. *Tinea aurella* F. (Tutt 1899).

NEPTICULA Hdn. Ber. Vers. Naturf. Mainz **1843**. 208; Z. Lin. Ent. III. 249, 301–3 (1848); Tutt NH. Br. Lp. I. 184–5 (1899); Stgr-Rbl., etc.

Type 3. *Nepticula microtheriella* Stn. (Kby. 1897).

MICROSETIA* (Stph.) Kby., Lloyd's NH., HB. Lp. V. 313–4. Pl. **108·8 (1897).

Kirby adopts *Microsetia* Stph., sinking *Nepticula* Z. as a

synonym, overlooking that Westwood [Syn. Gen. Br. Ins. 112 (1840)] had cited as the type of *Microsetia* Stph., *stipella* (Hb. **20**·138) Stph. Ill. IV. 265, Wd. 1347 (=Wstwd. II. 212 no. 5. Pl. **112**·34)—apparently an *Aphelosetia*: but in any case *microtheriella* Stn. cannot be the type of *Microsetia* Stph.

139. (4303·1) Stigmella rubicurrens, sp. n.

Antennae steel-grey; eye-caps steely yellowish. *Head* black above. *Thorax* bronzy greyish. *Forewings* pale greenish bronzy greyish, a broad copper patch preceding the paler shining grey cilia. *Exp. al.* 4 mm. *Hindwings* and cilia steely grey. *Abdomen* fuscous. *Legs* steely grey.

Type ♀ (14160) Mus. Wlsm.

Hab. Tenerife: La Laguna, ⊕ *Rubus*, 8. III, excl. 26. III. 1904 (*Eaton*). Unique.

This differs from *fletcheri* Tutt in the distinctly copper, not purplish, patch at the apex.

Mr. Eaton bred a single specimen from a larva found mining a bramble leaf in the barranco below La Laguna, at about 1700–1600 ft., on March 8th. Mines, obviously narrower than those of *aurella* F., occurred on Bramble at Puerto Orotava, but I failed to breed the species. This is probably the same as the larva found by von Hedemann at Orotava, mining Bramble, in April 1895, and recorded by Rebel as *Nepticula sp.* [Ann. K.K. Hofmus. XI. 143, 147 no. 220 (1896): XXI. 44 no. 245 (1906)]. A single specimen (99173), taken at Puerto Orotava, 14. V. 1907 (*Wlsm.*), is possibly a worn example of this species, but it shows only a slight coppery tint, instead of the distinct copper patch of the bred specimen.

140. (4333) Stigmella aurella F.

Tinea aurella F. Syst. Ent. 666 no. 65 (1775)[1]. *Nepticula aurella* Tutt NH. Br. Lp. I. 228–33 (1899)[2]; Stgr-Rbl. Cat. Lp. Pal. II. 223 no. 4333 (1901)[3].

Hab. EUROPE[1–3]: *Rubus fruticosus*[2–3]. N. AFRICA[2–3]—Morocco: Tangier, 10. IV. 1902 (*Wlsm.*). **Canaries**—Tenerife: Guimar, 1. III – 14. IV. 1907 (*Wlsm.*); La Laguna, 7–8. III. 1904 (*Eaton*); Villa Orotava, ⊕ *Rubus fruticosus*, 19. II, excl. 17–30. III. 1907 (*Wlsm.*).

First received from Mr. Eaton, who met with it at La Laguna; I took it at Guimar, and bred it from *Rubus fruticosus* at Villa Orotava, where the larvae were abundunt.

141. (4368·1) Stigmella staticis, sp. n.

Antennae blackish; eye-caps pale ochraceous. *Head* rust-brown. *Thorax* and *Forewings* black, minutely irrorated with pale leaden grey; cilia pale leaden grey, with black speckling.

Exp. al. 3–4·25 mm. *Hindwings* and cilia pale leaden grey. *Abdomen* grey. *Legs* pale grey.

Type ♀ (99201); ♂ (99202) Mus. Wlsm.

Hab. Tenerife: Puerto Orotava, ⊕ *Statice pectinata*, 4. V, excl. 29. V – 21. VI. 1907; La Laguna, 20. V. 1907. Thirteen specimens.

Perhaps most nearly allied to *helianthemella* HS., but the head is ochreous, and there is no pale fascia in either sex: the antennae are long, and there is no dark dividing line in the cilia.

Bred from larvae mining the leaves of *Statice pectinata*: the green larva, making small, tortuous, mines in the little leaves, is fairly abundant, but very inconspicuous; the cocoon is whitish. The mines were collected at Puerto Orotava; a single specimen taken on a table in the hotel at La Laguna probably escaped from my bottles.

142. (4368·2) Stigmella sanctaecrucis, sp. n.

Antennae greyish fuscous, paler beneath; eye-caps dull ferruginous, speckled with fuscous. *Head* dull ferruginous. *Thorax* greyish fuscous. *Forewings* pale cinereous, profusely speckled with greyish fuscous, almost entirely obliterating the paler ground-colour, which is confined to the bases of the rather coarse scales, but shows more clearly where the scales become lengthened, as in the cilia. *Exp. al.* 4·5–5 mm. *Hindwings* and cilia very pale greyish. *Abdomen* greyish fuscous. *Legs* pale cinereous.

Type ♂ (99214) Mus. Wlsm.

Hab. Tenerife: Santa Cruz, 15–17. I. 1907. Six specimens.

I found this species at Santa Cruz, only among plants of *Lavandula abrotanoides*, on which I noticed mines that appeared to differ from those of *Perittia lavandulae* Wlsm. (*ante*, p. 971 no. 83): they were more slender, and more tortuous, and probably belonged to a *Stigmella*.

143. (4378·1) Stigmella micromeriae, sp. n.

Antennae grey; eye-caps silvery white. *Head* yellowish. *Forewings* steely white, profusely sprinkled with coarse dark grey, or fuscous, scales; a straight silvery white transverse fascia, at two-thirds from the base, is sometimes slightly interrupted by a few of the dark scales; cilia steely whitish, with a slight sprinkling at their base. *Exp. al.* 3·5–4 mm. *Hindwings* and cilia pale steely grey. *Abdomen* grey. *Legs* greyish.

Type ♀ (99220); ♂ (99221) Mus. Wlsm.

Hab. Tenerife: Guimar, 14. III – 12. IV, ⊕ *Micromeria varia*, 25. II, excl. 1–9. IV. 1907. Twenty.two specimens.

The larva feeds on *Micromeria varia*, and I think also on *Micromeria origanifolia*, making small tortuous mines. It is decidedly common.

144. (4416·1) Stigmella jubae, sp. n. (Plate LIII. fig. 7.)

Antennae yellowish, delicately annulate with black; eye-caps whitish. Head bright yellow. *Thorax* black. *Forewings* white, with a broad black central fascia through which the ground-colour is visible only in small specks; a black basal patch, angulated outward in the middle, leaving only a narrow, curved, or angulated, white fascia between it and the median band, and a black patch occupying the whole apex and termen, the ground-colour showing before it in a narrow, white, rather oblique, bar, sometimes divided into two nearly opposite spots; this patch also shows some pale speckling; cilia whitish at the apex and termen, with a line of black scales running through them; greyish on the dorsum. *Exp. al.* 4·5–5·5 mm. *Hindwings* and cilia pale grey. *Legs* black, with white speckling.

Type ♀ (99119); ♂ (99121) Mus. Wlsm.

Hab. Tenerife: Santa Cruz, ⊕ *Euphorbia regis-jubae*, 4. II, excl. 8–17. III. 1907; Guimar, 9. III – 10. IV, ⊕ *Euphorbia regis-jubae*, 9. III, excl. 11–15. V. 1907. Eight specimens.

The larva makes narrow, tortuous, mines in the leaves of *Euphorbia regis-jubae*, and is not uncommon near Santa Cruz, and near Guimar, in February and March; like that of *euphorbiella* Stn., it is pale yellowish. The species is nearly allied to the South European *euphorbiella* Stn., but differs in the white, not creamy, ground-colour being much more obscured by black scaling.

145. (4416·2) Stigmella nigrifasciata, sp. n.

Antennae greyish: eye-caps white. *Head* greyish, with some white sprinkling. *Thorax* fuscous. *Forewings* white, with a smoky, ill-defined, basal patch, extending to one-third and speckled with black; a straight, rather narrower, median fascia, also thickly black-speckled, and an apical patch of the same colour including the cilia, except at their pale greyish outer ends. *Exp. al.* 4 mm. *Hindwings* and cilia pale greyish. *Abdomen* fuscous. *Legs* whitish, spotted with fuscous.

Type ♂ (99242) Mus. Wlsm.

Hab. Tenerife: Santa Cruz, 14. II. 1907. Two specimens, in excellent condition.

Much smaller and more fasciated than *jubae*, but not unlike it in colour.

146. (4418·1) Stigmella ridiculosa, sp. n.

Antennae pale fawn; eye-caps fawn-whitish. *Head* fawn-whitish, inclining to yellowish. *Thorax* fawn-whitish. *Forewings* fawn-whitish, profusely speckled with fawn-brown, this colour confined to the tips of the scales; cilia fawn-whitish, with very slight speckling. *Exp. al.* 4–4·5 mm. *Hindwings* very pale greyish; cilia fawn-whitish. *Abdomen* brownish grey. *Legs* fawn-whitish.

Type ♀ (99255); ♂ (99257) Mus. Wlsm.

Hab. Tenerife: Santa Cruz, 8–14. II. 1907; Guimar, ⊕ *Lotus sessilifolius*, 6. III, excl. 6–8. IV. 1907. Eighteen specimens.

An inconspicuous species belonging to the group of *cistivora* Peyr. The larva occurs at Santa Cruz, and Guimar, mining the minute leaflets of *Lotus sessilifolius*. Although very minute and inconspicuous, it is easily disturbed among its food-plant, and is not difficult to breed, if the obviously-mined leaves are collected without regard to the presence or absence of the larvae.

72. (431) BUCCULATRIX Z.

147. (4246) Bucculatrix chrysanthemella Rbl.

Bucculatrix chrysanthemella Rbl. Ann. KK. Hofmus. XI. 142, 147 no. 219 (1896)[1]: XXI. 44 no. 244 (1906)[2]: Stgr-Rbl. Cat. Lp. Pal. II. 219 no. 4246 (1901)[3].

Hab. Tenerife[1–3]: Guimar, 28. II. 1907, ⊕ *Chrysanthemum frutescens*, 27. II, excl. 7. III – 7. IV. 1907 (*Wlsm.*); Puerto Orotava[1], 23. IV – 10. V. 1907 (*Wlsm.*), ⊕ *Chrysanthemum frutescens*, excl. 25–28. IV. 1895 (*Hedemann*)[1].

Common on *Chrysanthemum frutescens*, at Santa Cruz and Guimar; I bred it from larvae and cocoons found on this plant.

148. (4246·1) Bucculatrix canariensis, sp. n.
(Plate LIII. fig. 10.)

Antennae dirty whitish, transversely barred above with greyish fuscous. *Head* greyish fuscous, hoary whitish at the sides. *Thorax* whitish, thickly sprinkled with fuscous. *Forewings* whitish, profusely sprinkled with greyish fuscous, and with some blackish scaling; the pale ground-colour is chiefly apparent in a streak, commencing at the base below the costa and extending to the end of the cell, ill-defined, but somewhat dilated about its middle, where there is a small black dot at its upper, and another at its lower edge, some black scaling running along the fold between this and the base; there is also a sprinkling of black scales around the end of the cell, and a double line of the same in the terminal cilia; dorsal cilia pale cinereous. *Exp. al.* 7–8 mm. *Hindwings* shining, pale stone-grey; cilia pale brownish cinereous. *Abdomen* shining, pale cinereous. *Legs* pale brownish cinereous, with faintly spotted tarsi.

Type ♂ (99276); ♀ (99279) Mus. Wlsm.

Hab. Tenerife: Santa Cruz, 11–16. II. 1907; Guimar, 28. II – 13. III. 1907; La Laguna, 9. VI. 1907. Sixteen specimens.

This species occurs at Santa Cruz, Guimar, and La Laguna, and probably everywhere where *Artemisia canariensis* is found; I did not actually breed it, but I found one or more larvae, and saw empty cocoons upon the plant. I have so far been unable to identify it with any known European species: it is an obscure insect, with no clearly defined markings—my specimens are in very good condition.

149. (4256·1) Bucculatrix phagnalella, sp. n. (Plate LIII. fig. 9.)

Antennae cinereous, faintly barred with fuscous. *Head* and *Thorax* whitish, the former with a strong admixture of dark rust-brown scales, especially on the middle of the crown; face and eye-caps white beneath. *Forewings* white, thickly besprinkled with fuscous and fawn-brown scaling; a blackish blotch, on the middle of the dorsum, is produced outward at its upper edge, and diluted in the direction of the apex, meeting, beyond the end of the cell, a corresponding shade bent downward from the middle of the costa, along which it can be traced narrowly to the base; the white ground-colour is always more clearly exhibited alongside of the darker shades and patches; apical cilia white, sprinkled with black scales, dorsal cilia greyish. *Exp. al.* 7–8 mm. *Hindwings* shining, pale grey; cilia brownish grey. *Abdomen* grey. *Legs* brownish grey.

Type ♂ (99292); ♀ (99293) Mus. Wlsm.

Hab. Tenerife: Guimar, 23–30. III. 1907, ⊕ *Phagnalon saxatile*, 27. II, excl. 24. III – 12. IV. 1907. Twenty-two specimens, nineteen bred.

Nearest to *fatigatella* Hdn., but the costal shade is less pronounced, and more limited to the costa, tending to spread, not toward the dorsum, but rather toward the tornus. The larva is common at Guimar on *Phagnalon saxatile*.

73. (431·1) EREUNETIS Meyr.

Ereunetis Meyr. Pr. Lin. Soc. NSW. V. 258 (1880): Tr. NZ. Inst. XX. 92 (1888): Pr. Lin. Soc. NSW. (2 s.). VII. 480, 562–3 (1893).

150. (4275·1) Ereunetis undosa, sp. n.

Antennae dark brown. *Palpi* slender, drooping; brownish. *Head* white, a brownish band above between the eyes. *Thorax* white; tegulae streaked with brown. *Forewings* dark chocolate-brown, with a broad white band along the dorsum, extending from base to apex, but almost interrupted at the tornus by overflow of the dark brown slightly overlapping the end of the fold; there is also a slight overlap at one-third from the base, while the white band projects a little across the fold at two-thirds; apex white, with a few brown scales; cilia white, with some greyish tinge about the tornus. *Exp. al.* 13 mm. *Hindwings* shining, pale steely grey; cilia brownish grey. *Abdomen* steely grey; flattened at the base, with long projecting ovipositor. *Legs* yellowish white; hind tibiae with long hairs above.

Type ♀ (99174) Mus. Wlsm.

Hab. Tenerife: Puerto Orotava, 2. V. 1907. Unique.

Allied to *seminivora* Wlsm. [Ind. Mus. Notes IV. 107. Pl. 7 · 2a–d (1899)], which differs in its brown face and pale antennae.

74. (470) OENOPHILA Stph.

=† *Oinophila* Stph., Stgr-Rbl.

151. (4621) Oenophila v-flava Hw.

Gracillaria v-flava Hw. Lp. Br. 530 no. 14 (1828)[1]. *Oinophila flava* Stn. Ann-Mag. NH. (3 s.). III. 214 no. 24 (1859)[2]. *Oenophila v-flavum* Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 542 no. 24 (1894)[3]. *Oinophila v-flavum* Rbl. Ann. KK. Hofmus. XI. 125, 146 no. 183 (1896)[4]: XXI. 44 no. 254 (1906)[5]: Stgr-Rbl. Cat. Lp. Pal. II. 240 no. 4621 (1901)[6].

Hab. EUROPE[1–4, 6]: ⊕ on fungus in cellars, on corks. **Madeiras**[2–4, 6]—Madeira[2–4, 6]: (*Wollaston*)[2]; Funchal, 27. IV. 1904 (*Eaton*). **Canaries**[4–6]—Tenerife[4–6]: Tacaronte, 18–28. II. 1907 (*Wlsm.*); La Laguna, 1800 ft., 22. II. 1904 (*Eaton*), 2100–500 ft., 17. III. 1902 (*Eaton*), 30. V. 1907 (*Wlsm.*); Guimar, 6. III. 1907 (*Wlsm.*), 23. III. 1904 (*Eaton*), 14. IV. 1907 (*Wlsm.*); Puerto Orotava[4], 13. III. 1904 (*Eaton*), 23–30. IV. 1895 (*Hedemann*)[4], 24. IV – 2. V. 1907 (*Wlsm.*).

Haworth's idionym "*v-flava*" has been changed to "*v-flavum*," despite its acceptance, with explanation of derivation, by the Entomological Societies of Oxford and Cambridge [Acc. List Br. Lp. 90 (1858)], and Stephens' genus is still written "*Oinophila*," although corrected to "*Oenophila*," by the same Societies (*l. c.*). Smith (Smaller Lat-Eng. Dict. 596) writes of the letter V: "V, *indecl. n.* or (litera, *subaud.*) *f.*" Haworth's idionym is therefore correctly formed, and the alteration unnecessary.

152. (4621·1) Oenophila nesiotes, sp. n.
(Plate LIII. fig. 11.)

Antennae pale olivaceous brownish, with a bronzy sheen above; pale yellowish beneath. *Palpi* short, divergent; pale ochreous, a brownish shade on the outer side of the terminal joint. *Head* ochreous, with a raised rust-brown crest between the antennae; face shining, pale yellowish ochreous. *Thorax* ochreous. *Forewings* dark olivaceous brown, with two shining, pale ochreous, transverse fasciae; the first, at one-third from the base, angulated outward at the middle, the angle produced outward along the cell, forming a continuous bar reaching to the middle of the outer fascia, at three-fourths from the base, which is inverted obliquely from costa to dorsum; this median bar is continued, in a diffused and rather obscure band, from the inner side of the first fascia to the base, leaving the dark ground-colour broader above it, and narrower below it along the margins—it is also continued beyond the outer fascia, with slight interruption, along the termen and through the cilia around the apex; cilia smoky brownish grey; underside strongly iridescent, with scattered metallic scales on a bronzy fuscous ground. *Exp. al.* 8–9 mm. *Hindwings* bronzy brownish, with a few iridescent metallic scales

about the apex: cilia brownish grey. *Abdomen* greyish fuscous, richly sprinkled with iridescent metallic scales. *Legs* brownish grey, the tarsi faintly spotted with pale ochreous.

Type ♂ (99176); ♀ (99177) Mus. Wlsm.

Hab. TENERIFE: La Laguna, 23. V. 1907. Twenty-four specimens.

A single specimen of this species would certainly be regarded as a variety of *v-flava* Hw., but the evidence pointing to the contrary is so strong that it must at least command attention. Should it in future be decided, by someone more fully acquainted with the larval history of both forms, that they are not consistently different and separable, the name *nesiotes* will sink as a varietal synonym. In general appearance the new species is rather more slender and elongate—the forewings longer in proportion to their width. In markings it differs in the invariable presence of a connecting bar along the cell, between the two pale transverse fasciae: this arises from the angulate outer edge of the first fascia, and is also more or less traceable on the basal side of the fascia, where it is sometimes quite as conspicuous as beyond it. In *v-flava*, the angle of the >-shaped fascia is often produced outward, and is occasionally traceable as far as the second, or outer, fascia, but among all the European and British specimens that I have seen there have been none in which the central pale longitudinal bar is produced inward to the base of the wing. I brought home 28 specimens of *v-flava*, from various localities in Tenerife, and have 5 received from Mr. Eaton: I have also 5 specimens from Madeira. None of these possess the characters of *nesiotes*, although many of them were selected from a larger number of captures on account of some tendency to variation: they cannot be separated from European specimens of *v-flava*. Of *nesiotes* I have 24 specimens, all taken in one spot, about ten yards square, in brushwood under a clump of fir-trees, north of the road between La Laguna and Tacaronte, about two or three miles from the former. In that spot they were flying in hundreds: I netted twenty at a time, and could easily have taken a thousand, or more, had I wished to do so. A search for larvae proved that they must have been feeding between layers of dead leaves on the ground: there were signs of web and frass, and the moths were dislodged in plenty as the leaves were turned over, but I was somewhat hurried and did not actually find any larvae. The typical *v-flava* did not occur among them, nor could I find it anywhere near the spot.

75. (433) OPOGONA Z.

153. (4277) OPOGONA PANCHALCELLA Stgr.

Opogona panchalcella Stgr. Berl. Ent. Zts. XIV. 325 no. 110 (1870)[1]; Chr. Hor. Soc. Ent. Ross. XII. 230 (1876)[2]; Stgr. Hor. Soc. Ent. Ross. XV. 419 (1880)[3]: Stgr-Rbl. Cat. Lp. Pal. II. 220 no. 4277 (1901)[4].

Hab. SE. EUROPE [1-4]—Russia [1-4] : astrachan : Sarepta [1, 3-4], 3. VII. 1867 (*Christoph*); daghestan : Derbent [2-3], 2. VII. 1870 (*Christoph*). WC. ASIA [2-4]—Transcaucasia [2-4] : Kasumkent [2-3]; Lenkoran [2] — Lydia [3-4] : Smyrna [3]. N. AFRICA — Algeria : Hammam-es-Salahin, 3–15. IV. 1904 (*Wlsm.*); Biskra, 8–21. IV. 1903 (*Wlsm.*); Bône, 30. IV. 1896 (*Eaton*); Le Tarf, 2. VII. 1896 (*Eaton*). **Canaries**—Tenerife : Santa Cruz, 2. I. 1907 (*Wlsm.*).

A single specimen of *Opogona panchalcella* was taken at Santa Cruz, 2. I. 1907, flying at dusk near a field in which Sorghum, or maize, had probably been grown : I am also able to record this species from Algeria.

76. (449) SETOMORPHA Z.

=**Lindera* Rbl. (nec Blanch.).

154. (4494) Setomorpha insectella F.

n. syn. = *rutella* Z. ♂ ♀ ; = *rupicella* Z. ♂ ; = *operosella* Z. ♀ ; = *inamoenella* Z. ♂ ; = *ruderella* Z. ♂ ; = *multimaculella* Chmb. ♂ ; = *dryas* Btlr. ♀ ; = *corticinella* Snln. ♂ ♀ ; = (**bogotatella* Alphk. ♀—nec Wkr.) ; = *discipunctella* Rbl. ♂ ♀.

Tinea insectella F. Ent. Syst. III. (2). 303 no. 72 (1794)[1] : Sppl. Ent. Syst. 489 no. 47 (1798)[2]. *Setomorpha rutella* Z. Lp-Micr. Caffr. 94–5 (1852)[3] : Hndl. Kngl. Vet-Ak. **1852**. 94–5 (1854)[3]. *Setomorpha rupicella* Z. Lp-Micr. Caffr. 95–6 (1852)[4] : Hndl. Kngl. Vet-Ak. **1852**. 95–6 (1854)[4]. *Setomorpha rutella* Wkr. Cat. Lp. BM. XXIX. 708 (1864)[5]; Z. VH. Z-B. Ges. Wien XXIII : **1873**. 223 (1873)[6]. *Setomorpha rupicella* Z. VH. Z-B. Ges. Wien XXIII : **1873**. 223 (1873)[7]. *Setomorpha operosella* Z. VH. Z-B. Ges. Wien XXIII : **1873**. 223–4 (1873)[8]. *Setomorpha inamoenella* Z. VH. Z-B. Ges. Wien XXIII : **1873**. 224–5 (1873)[9]. *Setomorpha ruderella* Z. VH. Z-B. Ges. Wien XXIII : **1873**. 225 (1873)[10]. *Setomorpha rutella* Z. Hor. Soc. Ent. Ross. XIII. 206 (1877)[11]. *Gelechia multimaculella* Chmb. Bull. US. GG. Surv. IV. 89–90, 145 (1878)[12]. *Setomorpha operosella* Chmb. Bull. US. GG. Surv. IV. 162 (1878)[13]. *Setomorpha inamoenella* Chmb. Bull. US. GG. Surv. IV. 162 (1878)[14]. *Setomorpha ruderella* Chmb. Bull. US. GG. Surv. IV. 162 (1878)[15]. *Setomorpha rutella* Wlsm. Tr. Ent. Soc. Lond. **1881**. 274, 287 (1881)[16]. *Chrestotes dryas* Btlr. Ann-Mag. NH. (5 s.). VII. 401 no. 39 (1881)[17]. *Gelechia multimaculella* Hgn. Pap. IV. 99 (1884)[18]. *Setomorpha corticinella* Snln. Tijd. Ent. XXVIII. 24–5 no. 10. Pl. **2** · 12 ♂–15 ♀ (1885)[19]. *Setomorpha rutella* Snln. Tijd. Ent. XXVIII. 24 (1885)[20]. *Setomorpha* **bogotatella* Alphk. Mém. Lp. V. 231 no. 55 (1889)[21]. *Setomorpha rutella* Wlsm. Tr. Ent. Soc. Lond. **1891**. 81–2. Pl. **7** · 73 ♀ (1891)[22]; Cotes Ind. Mus. Notes II. 9–10 (1891)[23]. *Setomorpha operosella* Riley, Smith's List Lp. Bor-Am. 96 no. 5134 (1891)[24]. *Setomorpha inamoenella* Riley, Smith's List Lp. Bor-Am. 96 no. 5135 (1891)[25]. *Seto-*

morpha ruderella Riley, Smith's List Lp. Bor-Am. 96 no. 5136 (1891)[26]. *Gelechia multimaculella* Riley, Smith's List Lp. Bor-Am. 96 no. 5414 (1891)[27]. *Setomorpha rupicella* Wlsm. Pr. Z. Soc. Lond. **1891**. 511, 544 no. 48 (1892)[28]. *Setomorpha discipunctella* Rbl. Ann. KK. Hofmus. VII. 267–8, 283 no. 46. Pl. **17** · 16 ♀ (1892)[29]. **Lindera* **bogotatella* Rbl. Ann. KK. Hofmus. VII. 267, 268, 283 no. 47 (1892)[30]. *Setomorpha operosella* Rbl. Ann. KK. Hofmus. VII. 268 (1892)[31]. *Setomorpha rutella* Rbl. Ann. KK. Hofmus. VII. 268 (1892)[32]. *Setomorpha corticinella* Rbl. Ann. KK. Hofmus. VII. 268 (1892)[33]. *Setomorpha rutella* Cotes Ind. Mus. Notes II. 164 no. 152 (1893)[34]. *Setomorpha discipunctella* Rbl. Ann. KK. Hofmus. IX. 17 no. 159 (1894)[35]. **Lindera* **bogotatella* Rbl. Ann. KK. Hofmus. IX. 17 no. 160 (1894)[36]. *Setomorpha* **bogotatella* White, Bfl. & Moths Teneriffe 95 no. 19 (1894)[37]. *Setomorpha discipunctella* Rbl. Ann. KK. Hofmus. XI. 122–3, 146 no. 175 (1896)[38]. *Setomorpha rutella* Rbl. Ann. KK. Hofmus. XI. 123 (1896)[39]. **Lindera* **bogotatella* Rbl. Ann. KK. Hofmus. XI. 146 no. 176 (1896)[40]. *Setomorpha rupicella* Wlsm. Pr. Z. Soc. Lond. **1897**. 168 no. 281 (1897)[41]. *Setomorpha discipunctella* Rbl. Ann. KK. Hofmus. XIII. 377, 381 no. 189 (1899)[42]. **Lindera* **bogotatella* Rbl. Ann. KK. Hofmus. XIII. 381 no. 190 (1899)[43]. *Setomorpha discipunctella* Stgr-Rbl. Cat. Lp. Pal. II. 233 no. 4494 (1901)[44]. *Plutella* (?) *multimaculella* Busck Jr. N-Y. Ent. Soc. X. 97 (1902)[45]; Dyar Bull. US. Nat. Mus. **52**. 492 no. 5509 (1902)[46]. *Setomorpha operosella* Dyar Bull. US. Nat. Mus. **52**. 575 no. 6549 (1902)[47]. *Setomorpha inamoenella* Dyar Bull. US. Nat. Mus. **52**. 575 no. 6550 (1902)[48]. *Setomorpha ruderella* Dyar Bull. US. Nat. Mus. **52**. 575 no. 6551 (1902)[49]. *Setomorpha rutella* [de Niéc.] Ind. Mus. Notes V. 201–2 (1903)[50]; Dietz Tr. Am. Ent. Soc. XXXI. 14–15 (1905)[51]. *Semiota operosella* Dietz Tr. Am. Ent. Soc. XXXI. 18–19, 91 (1905)[52]. *Semiota inamoenella* Dietz Tr. Am. Ent. Soc. XXXI. 18, 19, 91. Pl. **6** · 4 ♂ (1905)[53]. **Lindera* **bogotalella* Rbl. Ann. KK. Hofmus. XXI. 24 no. 7 (1906)[54]. *Setomorpha discipunctella* Rbl. Ann. KK. Hofmus. XXI. 24, 40, 44 no. 246 (1906)[55]. *Setomorpha operosella* Busck Pr. US. Nat. Mus. XXX. 734–5 fig. 9 ♂–10 ♀ (1906)[56]. *Setomorpha rupicella* Wlsm. Fn. Haw. I. 726 (1907)[57]. *Setomorpha discipuntella* Wlsm. Fn. Haw. I. 726 (1907)[58]. *Setomorpha dryas* Wlsm. Fn. Haw. I. 726 no. 434 (1907)[59]. *Setomorpha rutella* Wlsm. Fn. Haw. I. 754 no. 434 (1907)[60].

Hab. HAWAIIA [17, 59] — OAHU: Honolulu [17, 59] — HAWAII: Kaawaloa, Kona 1500 ft., VI [59]. N. AMERICA (UNITED STATES) [8–10, 12–15, 18, 21–7, 31, 45–9, 52–3, 56] — TEXAS [8–10, 18, 48, 52–3] (= "Mass.") [47–9]: BOSQUE CO.[12]: Waco [18] — KANSAS [52]. C. AMERICA — MEXICO: GUERRERO: Amula, 6000 ft., VIII (*H. H. Smith*) — GUATEMALA: Balheu (Vera Paz, *Champion*); San Gerónimo (*Champion*) — COSTA RICA: Irazu, 6–7000 ft. (*Rodgers*). S. AMERICA [41, 57] — BRAZIL [41, 57]: Pará, X–XII [41] — COLOMBIA: Bogotá (*Nolcken*). WEST INDIES [4, 7, 28, 41, 57] — CUBA [4, 7, 28, 41]: Ha-

vannah [4, 28, 41]—JAMAICA: Moneague, 5. I. 1905 (*Wlsm.*); Runaway Bay, 23. II. 1905 (*Wlsm.*). **Canaries** [21, 29–30, 35–8, 40, 42–4, 54–5]—TENERIFE [21, 29–30, 35–8, 40, 42–4, 54–5]: Santa Cruz, XII. 1897 (*Hintz*) [42], 8–31. I. 1907 (*Wlsm.*); Guimar, 6. III – 18. IV. 1907 (*Wlsm.*); Puerto Orotava, 1896 (*Douglas-Crompton*), 11. III. 1904 (*Eaton*), 12. IV. 1895 (*Hedemann*) [38]; Agua Mansa, 30. VII. 1889 (*Simony*) [29]. AFRICA [1–3, 5–6, 11, 16, 20, 32, 39, 41]: in Insectis (*Bosc*) [1–2]—SIERRA LEONE: ⊕ in moss, excl. 24. VIII – 13. IX. 1895 (*Clements*)—GOLD COAST: Accra (*Carter*)—CONGO: Kasongo, ⊕ "in muscular fibre, on skull of Hippopotamus collected by Dr. Todd," excl. 18. IX. 1905 (*Newstead*)—CAFFRARIA [3, 11]: Limpopo-Gariep [3, 11]. ASIA [19, 23, 33–4, 50]—INDIA [23, 34, 50]: Calcutta [23, 34, 50], Aliwal [50], ⊕ in blanketing, excl. 20–29. XII [50]—CEYLON: ⊕ "bred from moths received from Ceylon," excl. 15. IX. 1899 (*Burrows*)—ASSAM: Margherita, 1889 (*Doherty*)—CELEBES [19, 33]: Saleijer [19]; Makassar [19]; Maros [19]. AUSTRALIA—QUEENSLAND: Toowong, 1896 (*Dodd*).

Types ♂ ♀: *rutella* Z. ♂ ♀ (Mus. Stockholm; ♀ Mus. Wlsm.); *rupicella* Z. ♂ (Mus. Wlsm.); *operosella* Z. ♀, *inamoenella* Z. ♂, *ruderella* Z. ♂, and *multimaculella* Chmb. ♂ (Mus. Cambr-Mass.); *dryas* Btlr. ♀ (Mus. Br.).

A careful comparison of the type of *rutella* Z., with all the specimens of *Setomorpha* in my possession, shows that in the ♂ ♂ no difference can be detected sufficient to separate the five supposed species described from Caffraria, Cuba, the United States, Celebes, and Tenerife respectively.

Busck [Pr. U-S. Nat. Mus. XXX. 734–5 (1906)] has published the synonymy of the North American form, and this must now be combined with that of our Tenerife insect. I possess a long series of *rutella* Z. from Sierra Leone, bred from "moss," 24. VIII – 13. IX. 1895, by Dr. W. G. Clements (to whom I am indebted for this and other valuable material); there is absolutely no difference between these and the Tenerife specimens. I have also specimens bred, in Liverpool and at Merton, from muscular fibre attached to the skull of a Hippopotamus obtained by Dr. Todd at Kasongo (Congo: 5° S.)—for these I am indebted to Mr. R. Newstead. In India the larva has been found destructive to bales of country blanketing [Ind. Mus. Notes II. 9–10 (1891): V. 201–2 (1903)], and I have a specimen bred in England, by the Rev. C. R. N. Burrows, "from moths received from Ceylon." Dr. Clements' experience seems somewhat inconsistent with these records, but it is possible that the "moss" referred to by him may have been used for packing woollen goods, or skins, or may have contained an admixture of woollen rubbish; I am however without data on this subject. I have no ♂ of *corticinella* Snln. (Celebes), but this has been figured by Snellen and agrees with those already mentioned; I cannot regard this or *rupicella* Z. (Cuba) as distinct from *rutella* Z. *Setomorpha tineoides* Wlsm. [Pr. Z. Soc. Lond. **1886**. 465. Pl. **41**· 8 (1886)], having forewings 12 veins, all separate, and hindwings 8 veins, all separate, must be removed from

Setomorpha and referred to *Amydria* Clms. *Setomorpha grenadella* Wlsm. [Pr. Z. Soc. Lond. **1897**. 168–9, no. 282 (1897)] has strongly developed, folded, maxillaries and must be placed in *Dendroneura* Wlsm. The genus *Setomorpha* Z. is thus regarded as consisting of the single species *insectella* F., of which the synonymy is given above.

There seems little doubt that Fabricius described *rutella* Z. under the name *insectella*: in his description "posticæ" appears to be used in the sense of "postice" (possibly a misprint) and to apply to the forewings.

77. (475) DYSMASIA HS.

155. (4644) Dysmasia insularis Rbl.

Dysmasia insularis Rbl. Ann. KK. Hofmus. XI. 125–6, 146 no. 184. Pl. **3**·9 ♂ (1896)[1]: XXI. 44 no. 257 (1906)[2]: Stgr-Rbl. Cat. Lp. Pal. II. 241 no. 4644 (1901)[3].
Dysmasia insularis Rbl. + *instratella* Rbl. Ann. KK. Hofmus. XI. 125–6, 146 no. 184 (1896)[1]: XXI. 44 no. 257 (1906)[2]: Stgr-Rbl. Cat. Lp. Pal. II. 241 no. 4644[a] (1901)[3].

Hab. Tenerife[1-3]: Santa Cruz, 8. I. 1907 (*Wlsm.*); La Laguna, 8. III. 1904 (*Eaton*), 20. V – 7. VI. 1907 (*Wlsm.*); Guimar, 30. III – 16. IV. 1907 (*Wlsm.*); Puerto Orotava, 18–30. IV. 1895 (*Hedemann*)[1], 23. IV – 14. V. 1907, ⊕ in rubbish among roots, 24. IV, excl. 31. V. 1907 (*Wlsm.*).

Mr. Eaton made the following note on his series of *Tinea immaculatella* Rbl. and his single specimen of this species:—"Out of dead *Agave* (aloes). I believe they also breed in dead *Opuntia*." I bred a single specimen, May 31st, from a larva found at Puerto Orotava, in rubbish among roots on April 24th.

Dysmasia HS =

78. (475·1) STATHMOPOLITIS, gn. n.

(σταθμὸς=a stable; πολίτις=a citizen.)

Type *Stathmopolitis tragocoprella* Wlsm.

Antennæ slightly longer than the forewings, simple; basal joint without pecten. *Labial Palpi* porrect, median joint with dense brush beneath; terminal joint as long as the median, slender. *Maxillary Palpi*, *Haustellum*, and *Ocelli* obsolete. *Head* and face rough-haired. *Thorax* smooth. *Forewings* somewhat elongate, costa and dorsum evenly curved to apex, dorsum slightly impressed at vein 1: *neuration* 11 veins, all separate; 9 absent (coincident with 8 ?), radius subobsolete between 8 and 10, internal radial strong and acting as substitute; media strongly forked, its branches going to between 4 and 5, and 5 and 6, the latter veins somewhat approximate; 7 to costa. *Hindwings* with margins evenly curved to the blunt-pointed apex: *neuration* 8 veins; 5 and 6 stalked, rest separate; branches of media strong, to 4, and

to stalk of 5+6, between which discoidal is obsolete. *Abdomen* rather long, flattened. *Legs*, hind tibiae hairy.

This genus differs noticeably from *Dysmasia* HS. in the stalking of veins 5 and 6 of the hind wings: it would appear to have some affinity to *Narycia* Stph.

C—156. (4644·1) Stathmopolitis tragocoprella, sp. n.
(Plate LIII. fig. 16.)

Antennae dark fuscous. *Palpi* with the median joint dark fuscous; terminal joint pale fawn, shaded with fuscous. *Head* and *Thorax* dark fuscous. *Forewings* pale fawn, mottled with dark fuscous, the patches somewhat evenly distributed over the wing, the more conspicuous of these occurring around the margins, especially a medio-dorsal patch, with one equally well-marked at the end of the cell; between the larger spots is a sprinkling of smaller ones, those around the termen and apex throwing dentate streaks through the pale fawn cilia. *Exp. al.* (♂) 12–20 (♀) mm. *Hindwings* pale greyish fuscous, with a purplish iridescence; cilia brownish grey. *Abdomen* pale greyish fuscous. *Legs* subolivaceous, the tarsi faintly shaded with fuscous.

Type ♂ (99094); ♀ (99095); ⊕ (99097) Mus. Wlsm.

Hab. Tenerife: Tacaronte, 18. II. 1907 (*Wlsm.*); La Laguna, 17. III. 1904 (*Eaton*); Puerto Orotava, 23. IV – 12. V. 1907, ⊕ in dry goats' dung, 23. IV – 26. V, excl. 19. V – 18. VI. 1907 (*Wlsm.*). Thirty specimens (11 bred).

The larva, which is of a semitransparent ivory-white, with pale yellowish brown head, and with inconspicuous, much paler, pronotal plate, feeds in the old pellets of goats' dung. It is extremely abundant about the caves, on cliffs east of Puerto Orotava, and in similar situations.

Having regard to the great abundance of this insect, and to its strong superficial resemblance to *Lindera tessellatella* Blnchrd. (=*bogotatella* Wkr.), which is much more marked than in the case of *Setomorpha insectella* F., it seems extremely probable that Alpheraky had this species before him when recording "*Setomorpha bogotatella*" from Tenerife, but I have not thought it necessary to dispute Prof. Rebel's expressed opinion on the identity of the specimen which forms the subject of this bare and unsatisfactory record.

79. (465) TRICHOPHAGA Rgt.

157. (4538) Trichophaga abruptella Wlstn.

=*bipartitella* Rgt.[7]; =**tapetzella* Rbl. (nec L.)[7].

Tinea abruptella Wlstn. Ann-Mag. NH. (3 s.). I. 120 (1858)[1]; Wkr. Cat. Lp. BM. XXX. 1003 (1864)[2]. *Tinea bipartitella* Rgt. Bull. Soc. Ent. Fr. **1892**. p. lxxxii (1892)[3]. *Tinea tapetzella* Rbl.

Ann. KK. Hofmus. VII. 268–9, 283 no. 48 (1892)[4]: IX. 17 no. 161 (1894)[5]. *Trichophaga bipartitella* Rgt. Ann. Soc. Ent. Fr. LXIII: **1894**. 121–4 (1894)[6]. *Trichophaga abruptella* Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 541 no. 16 (1894)[7]; Rbl. Ann. KK. Hofmus. XI. 123, 146 no. 177 (1896)[8]: Wlsm. Pr. Z. Soc. Lond. **1896**. 281 (1896)[9]; Stgr-Rbl. Cat. Lp. Pal. II. 236 no. 4538 (1901)[10]: Rbl. Ann. KK. Hofmus. XXI. 44 no. 248 (1906)[11].

Hab. SW. ASIA[9]—ARABIA[9]: Aden, 30. IV. 1895 (*Nurse*)[9]. AFRICA[3, 6–10]—SOMALILAND[9]: Zaila, 21. V. 1895 (*Nurse*)[9]—EGYPT[7–9]: 1887 (*Fortescue*)—TUNIS[3, 6–10]: Gabès (*Dattin*)[3–9]. **Madeiras**[1–2, 4–5, 7–10]—MADEIRA[1]: (*Wollaston*)[1–2]—PORTO SANTO: (*Wollaston*)[1–2, 7, 9]. **Canaries**[4–5, 7–11]—TENERIFE[8, 11]: Guimar, 1. IV. 1907 (*Wlsm.*); Puerto Orotava, 14–18. IV. 1895 (*Hedemann*)[8]. —GRAN CANARIA: (*Richter*)[4–5, 8–9, 11]—LOBOS: (*Alluaud*)[8–9, 11].

I took a single specimen of this species at Guimar, on April 1st.

158. (4539) TRICHOPHAGA TAPETIELLA L.

= † *tapetzella* L.

Phalaena Tinea tapetzella L. Syst. Nat. (ed. X). I. 536 no. 253 (1758)[1]; Swinh-Cotes Cat. Moths Ind. 705 no. 4804 (1889)[2]; Wlsm. Tr. Ent. Soc. Lond. **1891**. 86 (1891)[3]; Rbl. Ann. KK. Hofmus. VII. 283 no. 48 (p.) (1892)[4]. *Tinea tapetiella* Meyr. Pr. Lin. Soc. NSW. (2 s.). VII. 535 no. 78 (1893)[5]. *Trichophaga tapetiella* Meyr. HB. Br. Lp. 785–6 (1895)[6]. *Trichophaga tapetzella* Stgr-Rbl. Cat. Lp. Pal. II. 236 no. 4539 (1901)[7]; Dyar Bull. US. Nat. Mus. **52**. 573 no. 6532 (1902)[8]. *Trichophaga tapetiella* Dietz Tr. Am. Ent. Soc. XXXI. 34 (1905)[9].

Hab. EUROPE[1, 7]. ASIA[2, 4, 7]. AFRICA[3, 6]. **Canaries**—TENERIFE: Guimar, 9. III. 1907 (*Wlsm.*); Puerto Orotava, 26. IV. 1907 (*Wlsm.*). N. AMERICA[8–9]. S. AMERICA—BRAZIL: Castro, Parana, 1896 (*E. D. Jones*); Santa Catherina—CHILI: Quillota, 1887 (*Paulson*). AUSTRALIA[5]—QUEENSLAND: Toowong, 1896 (*Dodd*). NEW ZEALAND[5].

Single specimens were taken at Guimar, and at Puerto Orotava.

80. (464) MONOPIS Hb.

159. (4529) MONOPIS IMELLA Hb.

Tinea imella Hb. Smlg. Eur. Schm. VIII. Pl. **50** · 347 (1816)[1]. *Abebaea immella* Hb. Verz. Schm. 408 no. 3937 (1826)[2]. *Monopis imella* Stgr-Rbl. Cat. Lp. Pal. II. 236 no. 4529 (1901)[3].

Hab. WC. ASIA[3]. EUROPE[1–3]. **Canaries**—TENERIFE: Guimar, 13–28. III. 1907 (*Wlsm.*).

Two specimens of *imella* Hb. were taken at Guimar, on the 13th and 28th of March.

160. (4530) Monopis nigricantella Mill.

Tinea nigricantella Mill. Pet. Nouv. Ent. I. 172 (1872)[1]. *Monopis nigricantella* Stgr-Rbl. Cat. Lp. Pal. II. 236 no. 4530 (1901)[2]: Rbl. Ann. KK. Hofmus. XXI. 40, 44 no. 247 (1906)[3].

Hab. S. EUROPE[1-2]—Corsica: Ajaccio, 4–8. V. 1896 (*Wlsm.*); Corté, 9–14. VI. 1893 (*Wlsm.*)—S. France[1-2]: Cannes, V. 1890 (*Wlsm.*); Monte Carlo, 18. VI. 1898 (*Wlsm.*). N. AFRICA—Algeria: Biskra, 5. III – 9. IV. 1903 (*Wlsm.*); El-Kantara, 24. IV – 22. V. 1903 (*Wlsm.*)—Morocco: Tangier, 12. III – 18. V. 1902, 13. IV. 1901 (*Wlsm.*); Rabat, 4. IV. 1902 (*Wlsm.*). **Canaries**[3]—Tenerife[3]: 1905 (*White*)[3]; Guimar, 6–19. III. 1907 (*Wlsm.*); Las Mercedes, 30. III. 1904 (*Eaton*); La Laguna, 8. IV. 1904 (*Eaton*).

161. (4534) Monopis crocicapitella Clms.

=*hyalinella* Stgr.; =*lombardica* Hrng.; =**ferruginella* Dyar (nec Hb.).

Tinea crocicapitella Clms. Pr. Ac. Nat. Sc. Phil. XI. 257, 258 (1859)[1]; Clms-Stn. Tin. N. Am. pp. viii, 49, 51 (1872)[2]. *Tinea hyalinella* Stgr. Hor. Soc. Ent. Ross. VII. 229 (1870)[3]. *Blabophanes lombardica* Hrng. Stett. Ent. Ztg. L. 295–9 (1889)[4]. *Monopis lombardica* Stgr-Rbl. Cat. Lp. Pal. II. 236 no. 4534 (1901)[5]. *Monopis hyalinella* Stgr-Rbl. Cat. Lp. Pal. II. 236 no. 4535 (1901)[6]. *Monopis ferruginella* Dyar Bull. US. Nat. Mus. **52**. 570 no. 6488 (1902)[7]. *Monopis crocicapitella* Dietz Tr. Am. Ent. Soc. XXXI. 31, 33–4 (1905)[8]; Wlsm. Fn. Hawaii. 728, 737, 754, 757, 758 no. 437 (1907)[9].

Hab. EUROPE[3-6, 9]. N. AFRICA—Morocco: Tangier, 8. V. 1902 (*Wlsm.*). **Canaries**[9]—Tenerife: La Laguna, 13. I. 1907 (*Wlsm.*), 14–15. III. 1902, 18. IV. 1904 (*Eaton*), 23. V – 9. VI. 1907 (*Wlsm.*); Tacaronte, 18–19. II. 1907 (*Wlsm.*); Puerto Orotava, 23. IV – 16. V. 1907 (*Wlsm.*). UNITED STATES[1-2, 7-9]—Florida: 1884 (*Morrison*). CANADA—British Columbia: New Westminster, 30. V – 21. VI. 1900 (*C. W. Durrant*). HAWAIIA[9].

This species occurred at La Laguna, Tacaronte, and Puerto Orotava, from February to June.

81. (466) TINEA L.

162. (4558·1) Tinea toechophila sp. n.
(Plate LIII. fig. 17.)

Antennae $\frac{3}{4}$; whitish, faintly annulate with fuscous. *Palpi* short, drooping, slender; greyish. *Head* and face rough; yellowish white. *Thorax* chocolate-brown. *Forewings* dark chocolate-brown, with clearly defined silvery white markings; first, a very

short patch across the base, then an almost straight transverse fascia, at one-fourth, scarcely broader on the dorsum than on the costa; a short triangular spot on the middle of the costa, followed by a larger triangular costal spot, before the apex, which nearly touches the outer side of a more acutely triangular dorsal spot preceding it; at the apex is a curved, narrow, white terminal band, running through the costal and terminal cilia, leaving those of the apex as a dark rounded spot within it; tornal cilia brownish fuscous. *Exp. al.* 7–9 mm. *Hindwings* pale, shining greyish; cilia pale brownish cinereous. *Abdomen* brownish fuscous. *Legs* greyish, with pale spotted tarsi.

Type ♀ (14076); ♂ (99098) Mus. Wlsm.

Hab. Tenerife: La Laguna, 22. II – 9. III. 1904 (*Eaton*); Forest de la Mina, 17–30. III. 1902 (*Eaton*); Las Mercedes, 30. III. 1904 (*Eaton*), 7. VI. 1907 (*Wlsm.*); Taganana, 27. V. 1907 (*Wlsm.*); Tacaronte, 31. V. 1907 (*Wlsm.*). Thirty-five specimens.

Mr. Eaton found this common on a wall, partly overgrown with lichens, at La Laguna, 22. II. 1904, and common amongst lichen-covered trees, at Las Mercedes, 30. III. 1904.

In the ♂ the forewings are usually broader, and less conspicuously marked than in the ♀, the pale spots and bands containing a few dark scales, therefore less purely white, and frequently smaller than in the ♀.

163. (4575). Tinea immaculatella Rbl.

Tinea merdella Z. ? var. *immaculatella* Rbl. Ann. KK. Hofmus. VII. 269–70, 283 no. 50 (1892)[1]. *Tinea immaculatella* Rbl. Ann. KK. Hofmus. XI. 123–4, 146 no. 180 (1896)[2]: XXI. 44 no. 249 (1906)[3]: Stgr-Rbl. Cat. Lp. Pal. II. 238 no. 4575 (1901)[4].

Hab. **Canaries** [1–4]—Tenerife [2–3]: Santa Cruz, 23. XII – 20. II. 1907 (*Wlsm.*); La Laguna, 8. III – 6. IV. 1904 (*Eaton*); Guimar, 13–28. III. 1907 (*Wlsm.*); Puerto Orotava, 19–28. IV. 1895 (*Hedemann*)[2], 12. V – 6. VI. 1907 (*Wlsm.*)—Fuerteventura [1–3]: Barranco del Rio Palma, 20. X. 1890 (*Simony*)[1].

Tinea immaculatella is by far the most abundant species in the Island; it is evidently attached to *Opuntia*. Mr. Eaton made the note: "Out of dead *Agave* (aloes). I believe they also feed on dead *Opuntia*." The larva probably feeds on the fibrous interior of the dead, or half-dead, stems of *Euphorbia canariensis*, *Cactus*, and *Opuntia cochinelifera*: I did not however observe it.

164. (4583) Tinea fuscipunctella Hw.

Tinea fuscipunctella Hw. Lp. Br. 562 no. 4 (1828)[1]; Wlsm. Tr. Ent. Soc. Lond. **1881**. 242 (1881)[2]; Meyr. Pr. Lin. Soc. NSW. (2 s.). VII. 534–5 no. 76 (1893)[3]; Stgr-Rbl. Cat. Lp. Pal. II. 238 no. 4583 (1901)[4]; Dyar Bull. US. Nat. Mus. **52**. 571 no. 6503

(1902)[5]; Dietz Tr. Am. Ent. Soc. XXXI. 44, 45, 47 (1905)[6]; Rbl. Ann. KK. Hofmus. XXI. 40, 44 no. 250 (1906)[7]; Wlsm. Ent. Mo. Mag. XLIII. 267 no. 4583 (1907)[8]: Fn. Hawaii. 729, 754, 757, 758 (1907)[9]; *etc.*

Hab. EUROPE[1, 4, 8]—S. FRANCE: Monte Carlo, 2. IV. 1879 (*Wlsm.*)—S. SPAIN: Granada, 22. V – 14. VI. 1901 (*Wlsm.*). ASIA[4]. AFRICA[2, 4]—MOROCCO: Tangier, 27. II. 1902 (*Wlsm.*) —ALGERIA: Azazga, 16. IX. 1893 (*Eaton*). **Madeiras**—MADEIRA: (*Wollaston*); Funchal, 27. IV. 1904 (*Eaton*). **Canaries**[7]— TENERIFE[7]: (*White*)[7]; Guimar, 12. III – 14. IV. 1907 (*Wlsm.*); La Laguna, 26. III. 1902, 8. IV. 1904 (*Eaton*). N. AMERICA[5–6]. HAWAIIA[9]. AUSTRALIA[3]. NEW ZEALAND[3].

C–165. (4583·1) TINEA THECOPHORA, sp. n.

Antennae $\frac{3}{4}$; bronzy fuscous. *Maxillaries* folded. *Labial Palpi* porrect, moderately clothed, terminal joint shorter than median, the latter with a few lateral bristles; fawn-brown, paler on their inner sides. *Head* and *Thorax* dark fawn-brown, mixed with ochreous. *Forewings* ochreous, thickly sprinkled with dark fawn-brown, tending to fuscous; a small black spot in the fold at $\frac{1}{3}$ from the base, another at the end of the cell, the costa and termen having a mottled appearance through aggregation of the brownish fuscous scales; in the more or less ochreous cilia are two darker shade-lines, the one near the base interrupted at short intervals, the other near their outer ends uninterrupted, but sometimes very faint. *Exp. al.* 11–14 mm. *Hindwings* shining, yellowish grey, with a brassy sheen; cilia pale bronzy grey. *Abdomen* and *Legs* shining, pale bronzy.

Type ♂ (98331); ♀ (98336) Mus. Wlsm.

Hab. TENERIFE: ⊕ in cases on walls in houses: Santa Cruz, 25. XII – 25. I. 1907; Guimar, 28. II – 10. IV. 1907, ⊕ III, excl. 29. III – 29. V. 1907; Puerto Orotava, ⊕ IV, excl. 21. IV. 1907. Thirteen specimens.

Case dust-coloured, elongate, ovate, flattened; very distinct from that of *pellionella* L. or *allutella* Rbl. It is not bottle-shaped, nor visibly indented on any part of the margin, and is formed of grains of dust and woolly refuse, but is smooth and dense in texture, and is open at both ends, cleanly cut, evenly rounded, and without ragged edges.

Differs in the plical spot being nearer to the base than in *fuscipunctella* Hw., also in the absence of a first discal spot above it. The more general sprinkling of dark scales causes the sub-ochreous ground-colour to be less visible, and gives it a more suffused appearance. The possession of a larval case is also a very notable distinction. *Tinea fuscipunctella* may be at once distinguished by having a discal spot above and before the plical.

166. (4584) Tinea pellionella L.

Phalaena Tinea pellionella L. Syst. Nat. (ed. X.). I. 536 no. 254 (1758)[1]. *Tinea pellionella* Stn. Ann-Mag. NH. (3 s.). III. 212 no. 13 (1859)[2]; E. Wlstn. Ann-Mag. NH. (5 s.). III. 422 (1879)[3]: Lp. St. Helena 37 (1879)[3]; Swinh-Cotes Cat. Moths Ind. 703 no. 4800 (1889)[4]; Rbl. Ann. KK. Hofmus. VII. 269, 283 no. 49 (1892)[5]: IX. 17, 88 no. 162 (1894)[6]: XXI. 44 no. 251 (1906)[7]; Meyr. Pr. Lin. Soc. NSW. (2 s.). VII. 532, 535 no. 77 (1893)[8]; Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 541 no. 17 (1894)[9]; Stgr-Rbl. Cat. Lp. Pal. II. 238 no. 4584 (1901)[10]; Dyar Bull. US. Nat. Mus. **52**. 572 no. 6520 (1902)[11]; Dietz Tr. Am. Ent. Soc. XXXI. 45, 51 (1905)[12]; Wlsm. Ent. Mo. Mag. XLIII. 267 no. 4584 (1907)[13].

Hab. ASIA[4, 10]—WC.[10]—Ceylon[4]—Japan[10]. EUROPE[1, 10, 13]—S. Spain: Granada, 14. VI – 6. VII. 1901 (*Wlsm.*). N. AFRICA[5, 10]:—Morocco: Zig, 9. IV. 1902 (*Wlsm.*); Tangier, 14. IV – 9. V. 1902 (*Wlsm.*). **Madeiras**[2, 5, 9–10]—Madeira[2, 9]: (*Wollaston*)[2, 9]; Machico, 23. IV. 1904 (*Eaton*). **Canaries**[5–7, 10]—Tenerife[5–7, 10]: IV. 1885 (*Leech*)[6]; Guimar, ⊕ on walls. 27. IV, excl. 6. V. 1907 (*Wlsm.*); Las Mercedes, 29. V. 1907 (*Wlsm.*); Garachico, 23. IX. 1889 (*Simony*)[5]. **St. Helena**: (*E. Wollaston*)[3]. N. AMERICA[10–12]. AUSTRALIA[8]. NEW ZEALAND[8].

167. (4596) Tinea lapella (Hb. ?) Rbl.

[*Tinea lapella* Hb. Smlg. Schm. Eur. VIII. Pl. **37** · 252 (1796)[1]. *Acedes lapella* Hb. Verz. Schm. 401 no. 3871 (1826)[2]. *Tinea lapella* Stgr-Rbl. Cat. Lp. Pal. II. 239 no. 4596 (1901)[3]].
Tinea? lapella Rbl. Ann. KK. Hofmus. XXI. 40, 44 no. 252 (1906)[4].

Hab. [EUROPE[1–3]. WC. ASIA[3]]. **Canaries**[4]—Tenerife[4]: Guimar, 1906 (*W. White*)[4].

Prof. Rebel records a single worn specimen, in Mr. White's collection, from Guimar, as "*? lapella* Hb." I examined Mr. White's specimen and do not think it is *lapella* Hb., the wings seem broader, and there is no spot at the end of the cell, the colour also looks wrong; I did not myself meet with the species, and was therefore unable to compare it with European specimens.

168. (4605) Tinea simplicella HS.

Tinea simplicella HS. SB. Schm. Eur. V. Pl. **47** · 322 (1851), p. 73 no. 54 (1854)[1]; Rbl. Ann. KK. Hofmus. IX. 18, 89 no. 163 (1894)[2]: XXI. 44 no. 253 (1906)[3]: Stgr-Rbl. Cat. Lp. Pal. II. 239 no. 4605 (1901)[4].

Hab. EUROPE[1–4]—Corsica: Ajaccio, 6. V. 1896 (*Wlsm.*)—Spain: granada: Granada, 19. V – 16. VI. 1901 (*Wlsm.*).

Canaries [2-4]—TENERIFE [2-4]: IV. 1885 (*Leech*) [2]; La Laguna, 23. V. 1907 (*Wlsm.*).

Two specimens taken at La Laguna on May 23rd.

82. (471) TINEOLA HS.

169. (4623) TINEOLA ALLUTELLA Rbl.

Tineola allutella Rbl. Ann. KK. Hofmus. VII. 270–1, 283 no. 51, Pl. **17**· 3 ♂ (1892) [1]: XI. 124–5, 146 no. 181 (1896) [2]: XXI. 44 no. 255 (1906) [3]; Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 542 no. 22 (1894) [4]; Stgr-Rbl. Cat. Lp. Pal. II. 240 no. 4623 (1901) [5].

Hab. **Madeiras** [2, 4-5]—MADEIRA [4]: (*Wollaston*) [4]. **Canaries** [1-5]—LA PALMA [1-3]: Los Sauces, 25. VIII. 1889 (*Simony*) [1]—TENERIFE [1]: 1889 (*Simony*) [1]; Santa Cruz, 2–20. I., 24. V. 1907 (*Wlsm.*); Guimar, 16. IV. 1907, ⊕ on walls, 27. IV, excl. 24. V. 1907 (*Wlsm.*); Puerto Orotava, ⊕ on walls, excl. 24. IV – 9. V. 1895 (*Hedemann*) [2], 24. IV – 12. V. 1907, ⊕ 23. IV, excl. 1. VI. 1907 (*Wlsm.*); Realejo, 10. V. 1907 (*Wlsm.*); La Laguna, 23. V. 1907 (*Wlsm.*).

Taken, and bred, from January to June, at Santa Cruz, Guimar, Puerto Orotava, Realejo, and La Laguna.

170. (4624) TINEOLA BISSELLIELLA Hml.

=† *biselliella* Z., Stgr-Rbl., etc.

Tinea bisselliella Hml. Essais Ent. III. 6–12, 13–14 (1823) [1]. *Tineola biselliella* Meyr. Pr. Lin. Soc. NSW. (2 s.). VII. 554 no. 116 (1893) [2]; Wlsm. Tr. Ent. Soc. Lond. **1894**. 537, 542 no. 21 (1894) [3]; Stgr-Rbl. Cat. Lp. Pal. II. 240 no. 4624 (1901) [4]; Dietz Tr. Am. Ent. Soc. XXXI. 72 (1905) [5]. *Tineola bisselliella* Dyar Bull. US. Nat. Mus. **52**. 570 no. 6487 (1902) [6].

Hab. EUROPE [1, 4]. N. AFRICA [4]. **Madeiras** [3]—MADEIRA [3]. **Canaries**—TENERIFE: Santa Cruz, 28. I – 10. II. 1907 (*Wlsm.*). N. AMERICA [5-6]. AUSTRALIA [2]. NEW ZEALAND [2].

It should be noted that Hummel named this species: "**bisselliella**. Du mot latin *bissellium*, canapé."

171. (4626) TINEOLA BIPUNCTELLA Rgt.

Tineola bipunctella Rgt. Ann. Soc. Ent. Fr. XLIII. (5 s. IV: **1874**). 579–80. Pl. **11**· 1 ♂ (1875) [1]; Rbl. Ann. KK. Hofmus. XI. 125, 146 no. 182 (1896) [2]: XXI. 44 no. 256 (1906) [3]; Stgr-Rbl. Cat. Lp. Pal. II. 240 no. 4626 (1901) [4].

Hab. EUROPE [1, 4]—SPAIN [1, 4]. N. AFRICA [4]—MOROCCO: Tangier, 4–18. XII. 1901, 5. IV – 20. V. 1902 (*Wlsm.*). **Canaries** [2-4]—TENERIFE [2-4]: Santa Cruz, 22–25. I. 1907 (*Wlsm.*); Puerto

Orotava, 13–29. IV. 1895 (*Hedemann*)[2], 3. V. 1907 (*Wlsm.*); Guimar, ⊕ on walls, 1. IV, excl. 2. VI. 1907 (*Wlsm.*).

Taken at Santa Cruz, and Puerto Orotava, and a single specimen bred from a case found on a wall at Guimar.

83. (441) LUFFIA Tutt.

172. (4435·01) Luffia rebeli, sp. n. (Plate LIII. fig. 18.)

n. syn.=**lapidella* Rbl. (nec Goeze).

Talaeporia (!) *lapidella* Rbl. Ann. K.K. Hofmus. VII. 267–8, 282 no. 45 (1892)[1]: IX. 17, 88 no. 158 (1894)[2]: XXI. 42 no. 122 (1906)[3]. *Luffia lapidella* (p.) Stgr-Rbl. Cat. Lp. Pal. II. 230 no. 4435 (1901)[4].

Antennae $\frac{2}{4}$, bipectinate, pectinations commencing on joint 4, each biciliate; pale stone-grey. *Head* and *Thorax* reddish fuscous. *Forewings* shining, sericeous, pale stone-grey, rather coarsely mottled with greyish fuscous, the groups of this darker scaling somewhat more conspicuous along the margins than in the middle of the wing; the strongest of these groups are—one arising from the dorsum near the base, overspreading the fold, and diffused across the base of the cell toward the costa; another, arising from scarcely before the middle of the dorsum, crossing the fold and diffused upward across the cell, and two or three on the outer half of the costa; cilia shining, sericeous, mottled with pale greyish fuscous along their basal half. *Exp. al.* 8–12 mm. *Hindwings* pale mouse-grey; cilia slightly paler and more shining. *Abdomen* pale mouse-grey. *Legs* pale stone-grey.

Type ♂ (99066); ♀ (14094) Mus. Wlsm.

Hab. **Canaries**[1–4]—Tenerife[1–4]: Las Mercedes, 2100 ft., 29. II. 1904 (*Eaton*); La Laguna, 15. III. 1902, 16–25. III. 1904, ⊕ in cases on walls and rocks, 22. II – III, excl. 23. III – 10. IV. 1904 (*Eaton*); IV. 1885 (*Leech*)[2]; Puerto Orotava, 23. IV. 1907, ⊕ on rocks, 24. IV, excl. 10–20. VI. 1907 (*Wlsm.*); Pedro Gil, 1300–1500 m., 30 VII. 1889 (*Simony*)[1]. Seventeen specimens.

This is the species recorded by Rebel as "*lapidella* Goeze," but it is a much larger and more distinctly marked species. The small cylindrical cases are extremely abundant on walls, and rocks, at Santa Cruz, Guimar, Orotava, and La Laguna, but unless obtained about the time of pupation, when through want of movement they can scarcely be distinguished from the numerous empty cases of previous generations, the larvae are very difficult to rear. It is almost impossible to keep a supply of small lichens, such as they feed upon. I first received this species from the late Mr. J. H. Leech, who took it in April 1885; Mr. Eaton took several specimens, and bred three ♂ ♂ and two ♀ ♀ in 1904. There may possibly be some allied species in the Island, but I only met with *rebeli*.

IV. PSYCHINA.

I. PSYCHIDAE.

84. (733) AMICTA Heyl.

— 173. (4453) Amicta cabreraï Rbl.

Psyche cabreraï Rbl. Ann. KK. Hofmus. IX. 10, 46–8 no. 39 (1894)[1]: XI. 105–6, 144 no. 39. Pl. 3 · 1a–c (1896)[2]: XIII. 364, 378 no. 39 (1899)[3]: XXI. 42 no. 121 (1906)[4]. *Amicta cabreraï* Stgr-Rbl. Cat. Lp. Pal. I. 394 no. 4453 (1901)[5].

Hab. Tenerife[1–5]: Montaña de Guerra, ⊕ *Euphorbia* (*Cabrera*)[1]; IV. 1894 (*Kraepelin*)[2]; ⊕ *Rubus idaeus*, 1898 (*Kilian*)[3]; Santa Cruz, 15. VI. 1898 (*Hintz*)[3]; La Laguna, 1600–1700 ft., ⊕ *Rubus*, *Cytisus*, 8. III, excl. 24. VIII. 1904 (*Eaton*); Guimar, ⊕ *Euphorbia*, *Rumex canariensis*, etc., 1–13. IV, excl. 25. VIII – 5. X. 1907 (*Wlsm.*).

Larva common everywhere, on various plants, *Euphorbia*, *Rumex*, etc., etc.; two specimens, one bred at the end of August, the other in the beginning of October.

Of the 173 species above noticed as occurring in Tenerife I have been able to observe the life-histories of 96, of which number 40 only were previously known; the larvae of 28 others having been already recorded elsewhere, 49 now remain to be discovered.

EXPLANATION OF PLATES LI., LII., & LIII.

(See Description facing the Plates.)

PLATE LI.

DESCRIPTION OF PLATE LI.

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Fig. 1.	Pterophorus melanoschisma	(Type ♂ 98934) ...	920
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F.W.Frohawk del. A.J.Wendel lith.

P.W.M.Trap Chromo.

TENERIFE MICROLEPIDOPTERA.

PLATE LII.

DESCRIPTION OF PLATE LII.

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E.W.Frohawk del. A.J.Wendel lith.

P.W.M.Trap Chromo.

TENERIFE MICROLEPIDOPTERA.

PLATE LIII.

DESCRIPTION OF PLATE LIII.

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Fig. 1.	Polychrosis neptunia	(Type ♀ 99106) ...	1000
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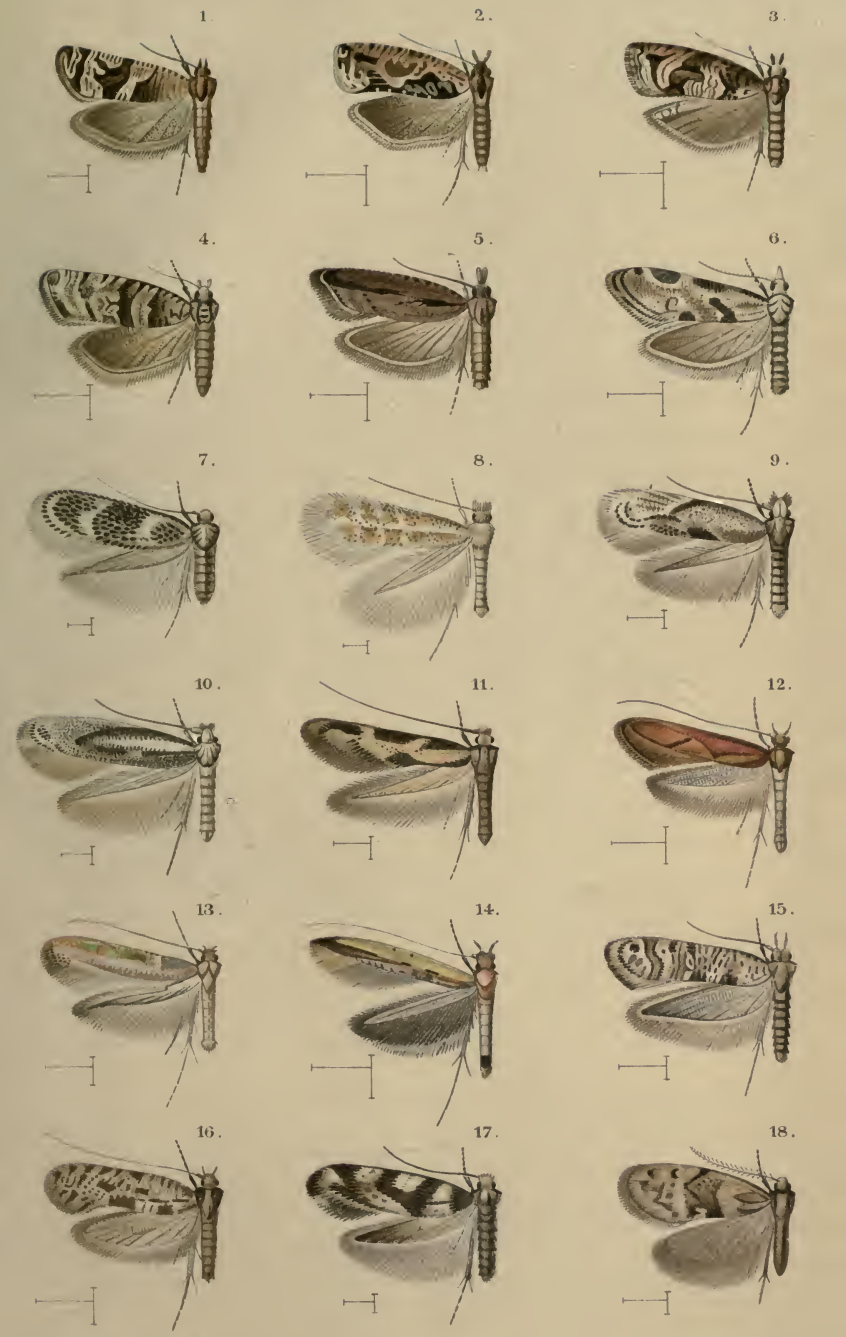

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